

JULY 1991

SL-3-09038

PCN 123 090380

TAMCN B22382

MARINE CORPS STOCKLIST



COMPONENTS LIST
FOR

TOOL KIT,
CATERPILLAR

THIRD AND FOURTH ECHELON

- The following information is a cut & paste from an actual Caterpillar Catalog.
- Crossed Referenced Cat Part Numbers to an available picture.
- The purpose of this was to simplify the SL-3 Inventory of the B2238 CAT KIT.
- The Marine Corps SL-3-09038A is alphabetized with no pictures, there for an actual and complete inventory is not being performed.
- This information might and hopefully will help your Maintenance personnel.
- This kit was a Marine Corps built Kit to support the Marine Corps Family of Caterpillar equipment.
- This Power Point is broken down by chapters.
 - All tools from the SL-3 are Identified by a corresponding number from the SL-3 to an Item or component from Caterpillar.
 - There are several items that belong to larger kits, some items that are obsolete, some are multipurpose which will need to be clarified by the owning unit.

Respectfully Submitted
1310 CWO3

HAND TOOLS, chap. 2

**2P-8270 Hex Socket Set, 7 Piece,
3/8 inch Drive**

Warranty: L

Specifications/Technical Information

- 3/8 inch Square Drive, Black Bit in Chrome Socket



Hex Sockets

Socket Assembly	Replacement Hex Bit	Hex Size	Drive
2P-8263	2P-8269	1/8 in	3/8 in
2P-8264	2P-8271	5/32 in	3/8 in
2P-8265	2P-8272	3/16 in	3/8 in
8T-3042	8T-3043	7/32 in	3/8 in
2P-8266	2P-8273	1/4 in	3/8 in
2P-8267	2P-8274	5/16 in	3/8 in
2P-8268	2P-8275	3/8 in	3/8 in

141→

**Plastic Storage Cases
with Hinged Lids**

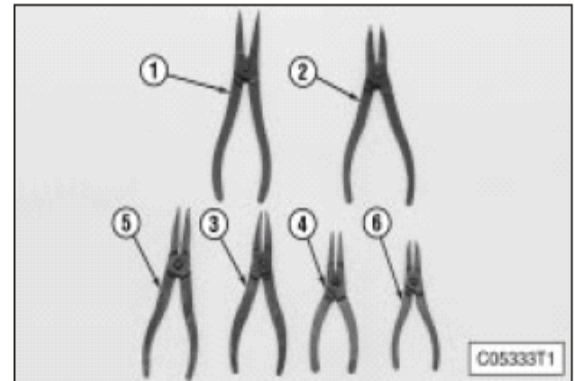
Warranty: G

Features/Benefits

- Cases are impact-resistant.
- Textured surface to prevent scratches.

Retaining Ring Pliers

Warranty: G

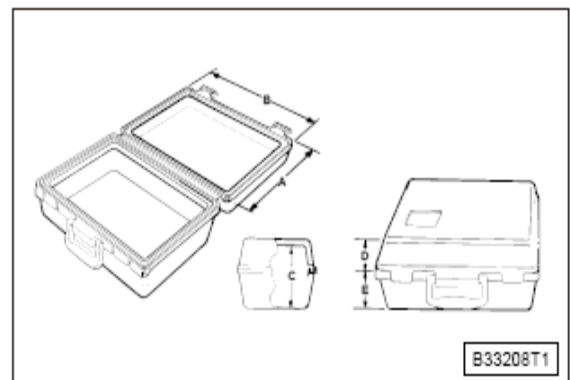


Retaining Ring Pliers — straight tips

Item	Part No.	Tip Size	Type
1.	1P-1863 (No. 26)	.115 in	External
2.	1P-1861 (No. 25)	.090 in	Internal
3.	1P-1857 (No. 23)	.070 in	Internal
4.	1P-1855 (No. 22)	.038 in	External
5.	1P-1859 (No. 24)	.070 in	External
6.	1P-1853 (No. 21)	.038 in	Internal

198→

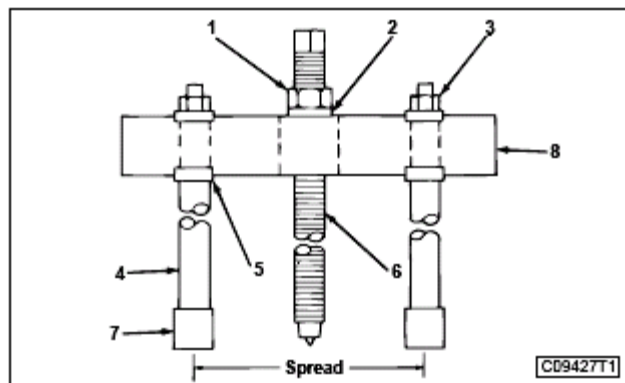
197→



Plastic Storage Cases with Hinged Lids

Part No.	Length A	Width B	Overall C	Lid Depth D	Base E	Handle	No. of Latches	Color
6V-3073	311.15 mm (12.25 in)	223.85 mm (3.8 in)	91.44 mm (3.6 in)	22.86 mm (0.9 in)	66.04 mm (2.6 in)	Yes	1	Black

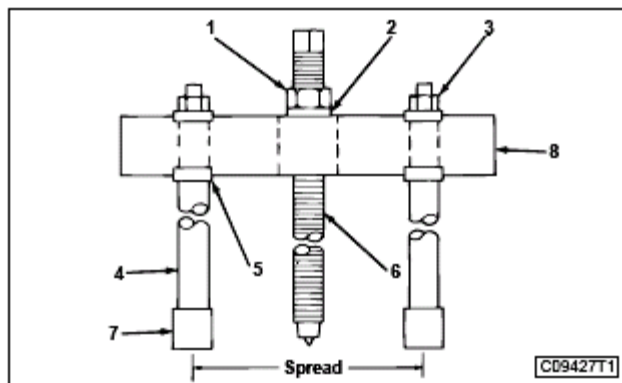
General Purpose Pullers and Attachments



#209 → 8B-7548 Push Puller, 17.5 Ton Capacity
(Spread 3 1/8 inch to 11 3/4 inch)

Consist:

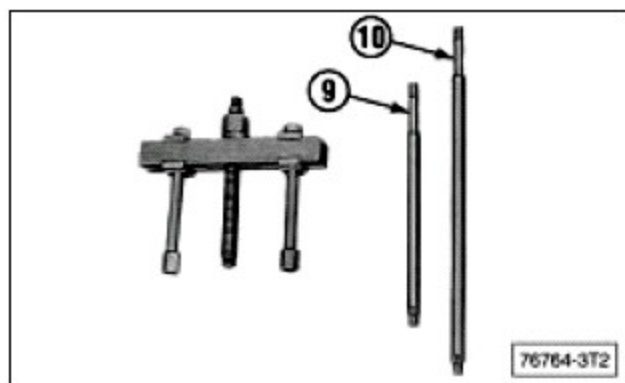
1. 5B-0637 Nut
2. 5F-7353 Washer
3. 1B-4207 Nut
4. 5F-7369 Leg (9.5 inch Reach)
5. 3H-0465 Plate
6. 5F-7366 Screw (1 inch-14 x 13 1/4 inch long)
7. 5P-4808 Cap
8. 1U-9895 Crossblock



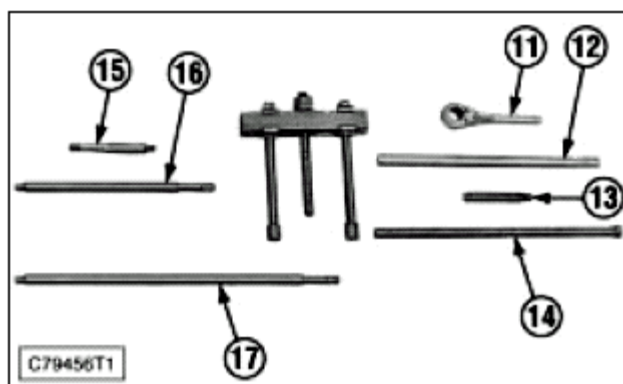
#206 → 1H-3107 Push Puller, 30 Ton Capacity
(Spread 7 inch to 16 1/4 inch)

Consist:

1. 3H-0466 Nut
2. 3H-0467 Washer
3. 1B-4209 Nut
4. 3H-0469 Leg (8 inch Reach)
5. 3H-0468 Plate
6. 3H-0470 Screw (1 1/2 inch-12 x 17 1/4 inch long)
7. 5P-4807 Cap
8. 1U-9889 Crossblock



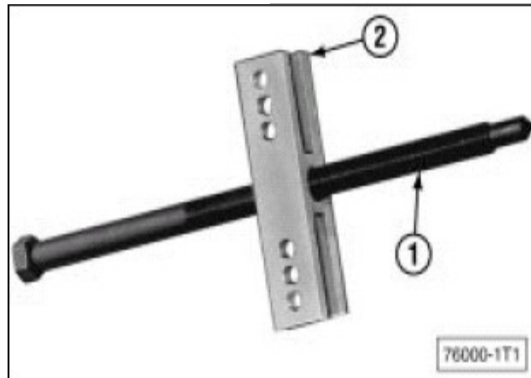
#165 → Optional Accessories:
9. 1H-3108 Leg (18 inch Reach)
10. 1H-3109 Leg (28 inch Reach)



Optional Accessories:

11. 8H-0684 Ratchet Wrench
12. 8B-7563 Handle (for 8H-0684)
13. 5H-9976 Screw (7.25 inch long)
- #243 → 14. 8S-6586 Screw (26 inch long 1 inch NF thread)
- #164 → 15. 8B-7550 Leg (4.5 inch Reach)
- #163 → 16. 8B-7549 Leg (16.5 inch Reach)
17. 162-4206 Leg (22.5 inch Reach)

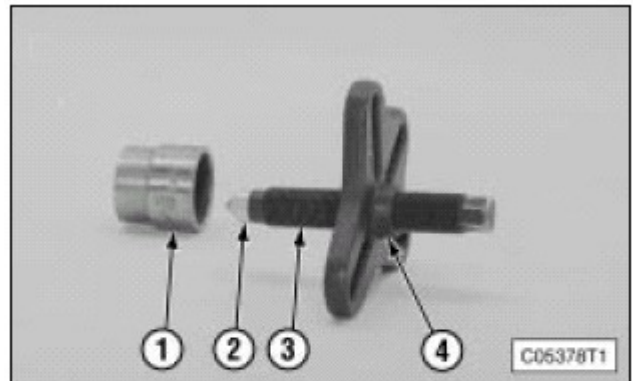
#204 → **5F-7465 Puller**



5F-7465 Puller Service Parts

1. 5F-7345 Screw
2. 5F-7344 Block (also used on 8B-7554)

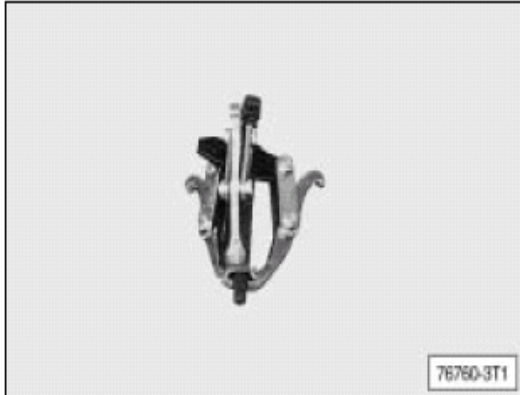
#218 → **8S-2264 Puller Group**



8S-2264 Puller Group

1. 8S-8375 Sleeve (not part of 8S-2264 Group)
2. 8S-5133 Plug
3. 8S-6470 Screw
4. 8S-5132 Plate, Puller

Combination 2-Jaw or 3-Jaw Pullers



- #213 → 1P-2320 Combination 2- or 3-Jaw Puller, 5 Ton Capacity
(Max. Spread 7 inch, Max. Reach 3.25 inch)

Service Parts:

1. 1P-2324 Screw
2. 1P-2323 Head
3. 3H-0462 Bolt and Nut
4. 8H-0698 Strap
5. 5F-7376 Jaw

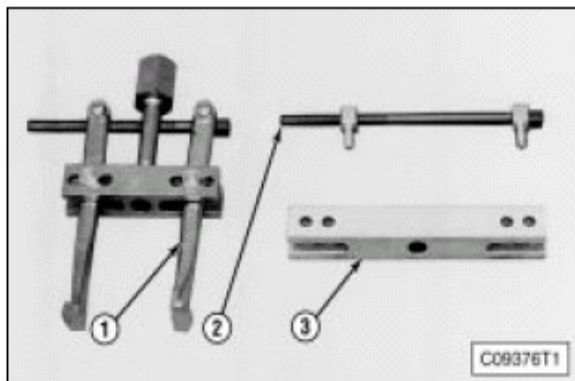


- #207 → 1P-2321 Combination 2- or 3-Jaw Puller, 7 Ton Capacity
(Max. Spread 10.50 inch, Max. Reach 5.0 inch)

Consist:

1. 1P-2326 Screw
2. 1P-2325 Head
3. 3H-0462 Bolt and Nut
4. 8H-0709 Strap
5. 5F-7373 Jaw

Bearing Cup Pulling Attachments



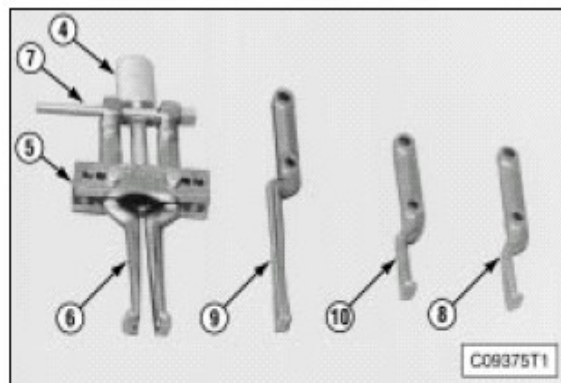
19→ 1H-3112 Bearing Cup Puller Attachment, 15 Ton Capacity

Serviceable Parts:

1. 6V-7888 Leg

Optional Accessories:

2. 1P-5551 Screw (14 inch long)
3. 1P-5546 Cross Block (13 inch long)



#216→ 8B-7554 Bearing Cup Puller Attachment, 5.5 Ton Capacity

Serviceable Parts:

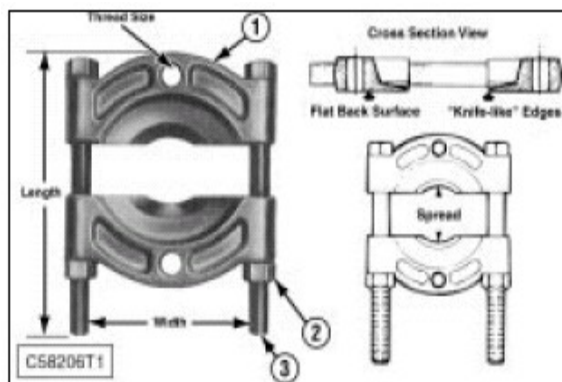
4. 8B-7553 Adapter
5. 5F-7344 Cross Block
6. 6V-7887 Leg
7. 5P-4750 Screw

Optional Accessories:

8. 1S-5188 Leg (7.13 inch long)
9. 7S-7786 Leg (10.5 inch long)
10. 1P-7461 Leg (7.06 inch long)

161→

Bearing Puller Assemblies



20→ 8H-0663 Puller Assembly, 9 Ton Capacity

Spread .38 inch to 4.62 inch
Length 8.50 inch — Width 4.25 inch —
Thread Size 5/8 inch-18

Service Parts

2. 1B-4206 Nut (Qty. 4)
3. 186-6569 Stud (Qty. 2)

215→ 8B-7551 Puller Assembly, 15 Ton Capacity

Spread .50 inch to 5.25 inch
Length 10.50 inch — Width 6.00 inch —
Thread Size 5/8 inch-18

Service Parts

1. 3H-0453 Block (Qty. 2)
2. 1B-4207 Nut (Qty. 4)
3. 3H-0459 Stud (Qty. 2)

1P-0510 Driver Group, Bearing and Seal



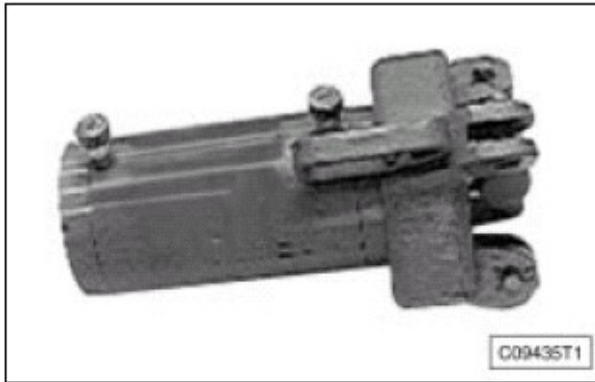
Item NO

88	1P-0510 Driver Group
91	1P-0454 Plate, .438 inch Diameter
92	1P-0455 Plate, .500 inch Diameter
93	1P-0456 Plate, .562 inch Diameter
78	1P-0457 Plate, .625 inch Diameter
94	1P-0458 Plate, .687 inch Diameter
95	1P-0459 Plate, .750 inch Diameter
96	1P-0460 Plate, .812 inch Diameter
83	1P-0461 Plate, .875 inch Diameter
84	1P-0462 Plate, .937 inch Diameter
79	1P-0463 Plate, 1.000 inch Diameter
97	1P-0464 Plate, 1.062 inch Diameter
85	1P-0465 Plate, 1.125 inch Diameter
	1P-0466 Plate, 1.187 inch Diameter
98	1P-0467 Plate, 1.250 inch Diameter
86	1P-0468 Plate, 1.312 inch Diameter
80	1P-0469 Plate, 1.375 inch Diameter
99	1P-0470 Plate, 1.437 inch Diameter
89	1P-0471 Plate, 1.500 inch Diameter
81	1P-0472 Plate, 1.563 inch Diameter
100	1P-0473 Plate, 1.625 inch Diameter
87	1P-0474 Plate, 1.687 inch Diameter
101	1P-0475 Plate, 1.750 inch Diameter
102	1P-0476 Plate, 1.812 inch Diameter
103	1P-0477 Plate, 1.870 inch Diameter
104	1P-0478 Plate, 1.937 inch Diameter
105	1P-0479 Plate, 2.000 inch Diameter
106	1P-0480 Plate, 2.062 inch Diameter
107	1P-0481 Plate, 2.125 inch Diameter
108	1P-0482 Plate, 2.187 inch Diameter
109	1P-0483 Plate, 2.250 inch Diameter
110	1P-0484 Plate, 2.312 inch Diameter
111	1P-0485 Plate, 2.375 inch Diameter
112	1P-0486 Plate, 2.437 inch Diameter
82	1P-0487 Plate, 2.500 inch Diameter
113	1P-0488 Plate, 2.562 inch Diameter
114	1P-0489 Plate, 2.625 inch Diameter
115	1P-0490 Plate, 2.687 inch Diameter
116	1P-0491 Plate, 2.750 inch Diameter
117	1P-0492 Plate, 2.812 inch Diameter
118	1P-0493 Plate, 2.875 inch Diameter
119	1P-0494 Plate, 2.937 inch Diameter
120	1P-0495 Plate, 3.000 inch Diameter
121	1P-0528 Tube, Extension
90	1P-0529 Handle
	1P-0531 Handle
	9S-9155 Spacer
	6L-5897 Bolt, 7/8 inch long
	4L-7124 Bolt, 1 1/4 inch long
	5L-9018 Bolt, 1 3/4 inch long
	6L-5551 Bolt, 2 1/4 inch long
	6J-2819 Bolt, 2 3/4 inch long
	6B-7225 Wrench, 3/16 inch Hex
	Instruction Sheet

chapter 6

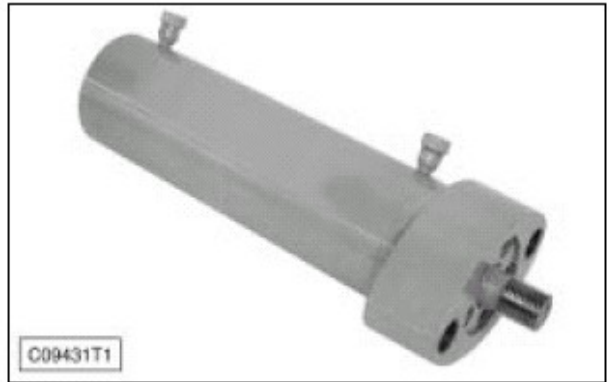
Single and Double Acting Cylinders

68 **9S-8901 Cylinder Group, Double Acting**



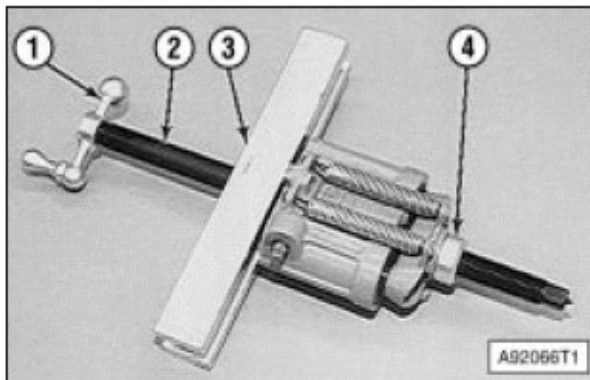
9S-8901 Cylinder Group, Double Acting

264 **8S-7172 Cylinder Group, Double Acting**



8S-7172 Cylinder Group, Double Acting

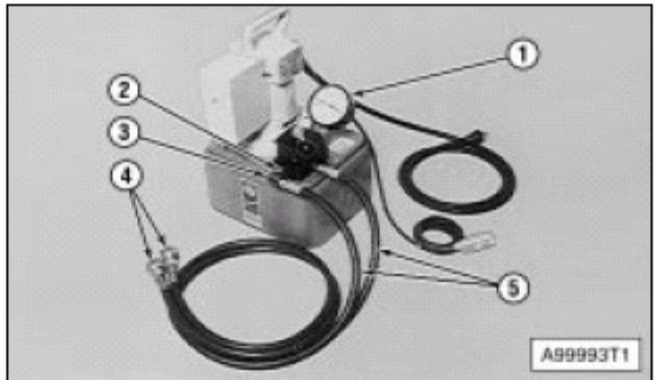
203 **1P-0820 Hydraulic Puller Group**



1P-0820 Hydraulic Puller Group

1. 9S-6072 Crank, Adjusting
2. 9S-6074 Screw, Adjusting
3. 9S-7338 Cross Block
4. 1P-2329 Insert, Threaded

251 **3S-6224 (115V) and 8S-8033 (230V) Electric Hydraulic Pump**



1. 8T-0820 Gauge
or
8T-5343 Gauge
2. 3B-7722 Bushing (two)
3. 7J-8611 Street Elbow
4. 1P-2376 Coupler Assembly (two)
1P-2377 Plug (two)
5. 8F-0024 Hose Assembly, 183 cm (72 in) (two)

#147

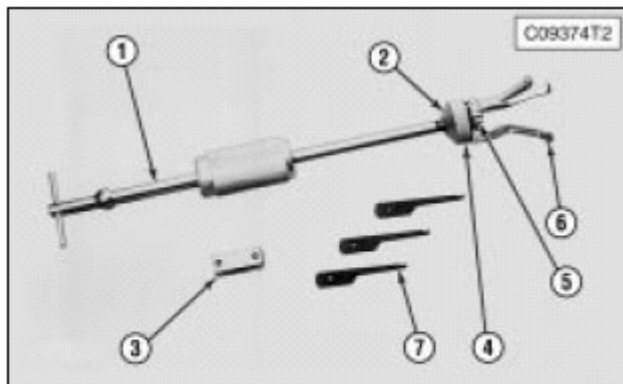
CATERPILLAR KIT

chapter 6

Miscellaneous

#248

1P-0074 Slide Hammer Puller, 5 Ton Capacity



1P-0074 Slide Hammer Puller

1. 1P-0073 Shank
2. 1P-0068 Cone
3. 1P-0070 Head, Two Jaw
4. 1P-0069 Head, Three Jaw
5. 1A-8285 Nut (three)
- 6H-0187 Bolt (three)
6. 1P-0071 Jaw (three)

Optional Attachment (not part of 1P-0074 Puller):

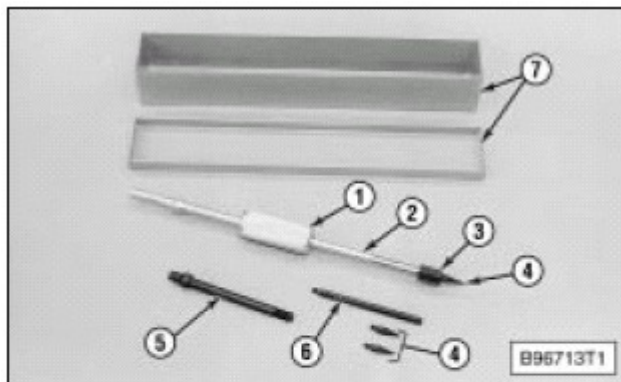
- #162 7. 2P-2312 Leg 4.7 inch long, three required to pull seal retainer plates on the input and output shafts of Lift Truck Hydrostatic transmissions

9

8

#211 / 247

1U-7600 Slide Hammer Puller Group



1U-7600 Slide Hammer Puller Group

1. 1U-7603 Hammer
2. 1U-7601 Rod
3. 1U-7602 Adapter
4. 1P-3073 Screw Tip (3)
5. 1U-7649 Shank
6. 1P-2868 Shaft

Type 1

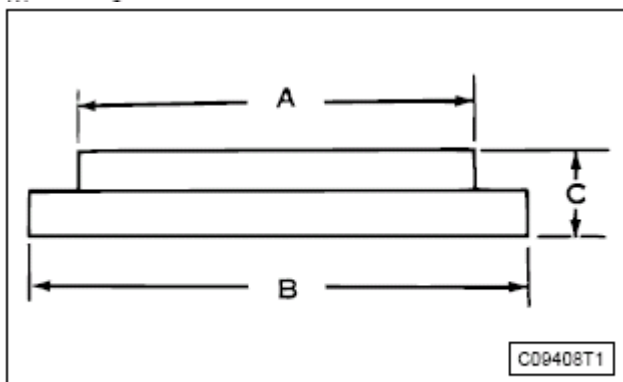
Part No.	Male End	Female End	Capacity
8B-7559	1/2 in-13	5/8 in-18	6.5 Ton
5F-7342	1 in-14	5/8 in-18	11.75 Ton

Type 2

Part No.	Female End	Female End	Capacity
8B-7555	5/8 in-18	3/4 in-16	11.75 Ton

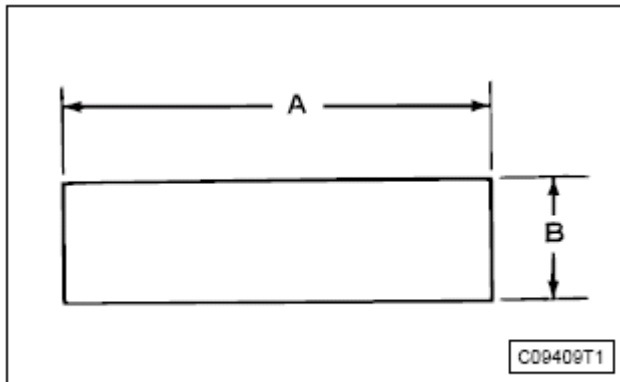
10

Step Plates and Centering Spacers



Step Plate

Step Plate Part No.	Dia. "A"	Dia. "B"	Height "C"
8B-7560	1.25 in	1.63 in	.75 in



Spacer

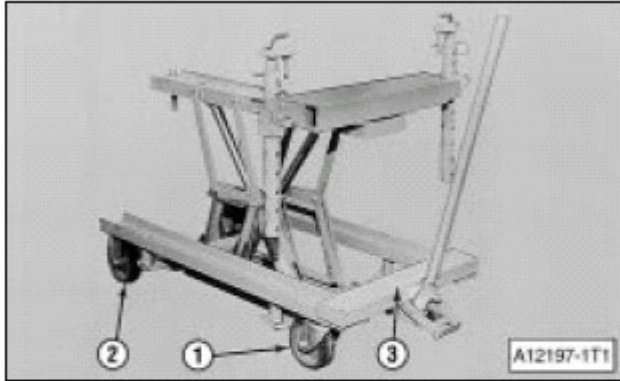
Spacer Part No.	Dia. "A"	Thickness "B"
OL-1774	1.94 in	.75 in

CATERPILLAR KIT

chapter 7

Lifting, Blocking and Clamping Equipment

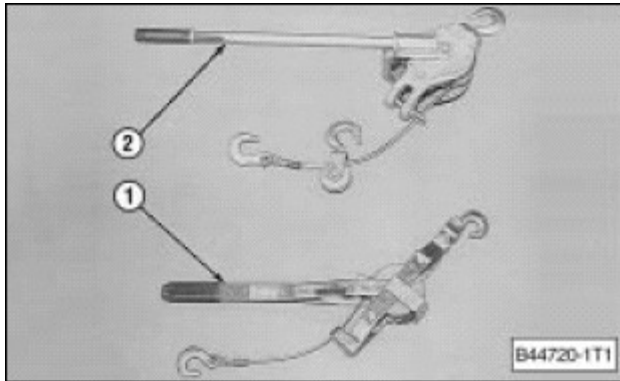
50 5P-3050 Crankcase and Transmission Guard Jack



5P-3050 Crankcase and Transmission Guard Jack

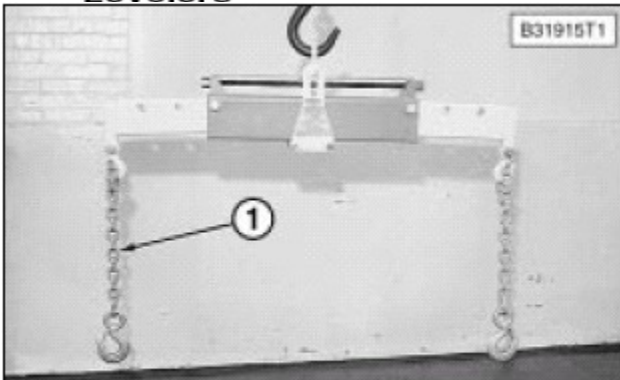
1. 5P-3047 6 inch Caster, Swivel (two), 2 inch wide
2. 5P-3048 6 inch Caster, Rigid (two), 2 inch wide
3. 5P-3049 Repair Kit, Jack (available separately)
3. Capacity Decal SEHS7448

232 8S-9906 Ratchet Puller



1. 8S-9906 Ratchet Puller

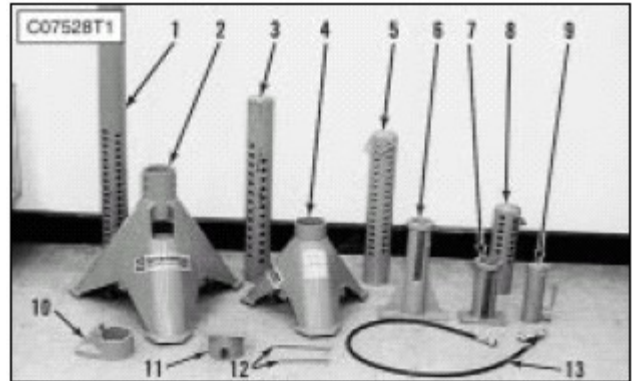
166 6V-3145 and 6V-6146 Load Levelers



6V-3145 Load Leveler

1. 6V-3144 Chain (used with 6V-3145 and 6V-6146)

Tube Stands



1. 8S-7641 Tube
2. 4C-6486 Stand
NEEG2453 Warning Decal
NEEG2001 Cat Logo Decal
3. 8S-7631 Tube
4. 8S-7640 Stand
5. 8S-7621 Tube
6. 8S-7620 Base Assembly
7. 8S-7610 Base Assembly
8. 8S-7611 Tube
9. 8S-7650 Cylinder
10. 8S-7625 Collar
11. 8S-8048 Saddle
12. 8S-7615 Pin
13. 8S-7645 Hose Group

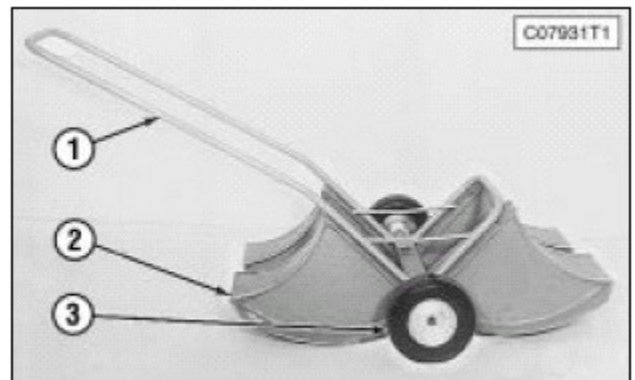
254 →

236 →

259 →

67 →

184 →



238 → 2. 9S-0027 Lift Assembly (four)

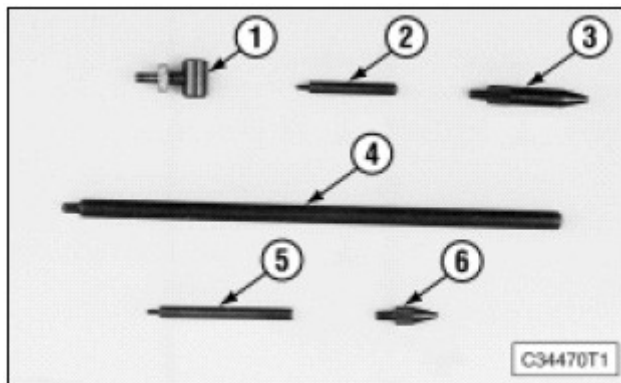
28 Diagnostic Tools

227 6V-7070 Digital Multimeter



6V-7070 Heavy-Duty Digital Multimeter

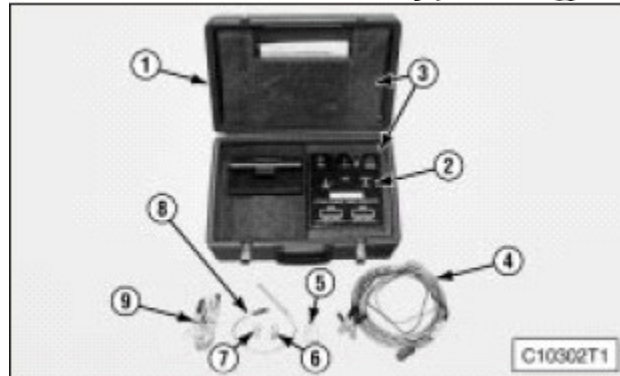
47 6V-6042 Point Group



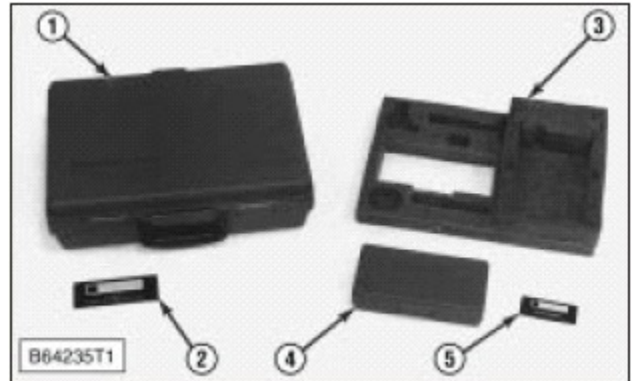
Part No.	mm	inch
5P-2393	38.1	1.50

1. 5P-2057 Contact Point
2. 1P-5512 Contact Point
3. 6V-6167 Contact Point¹
4. 5P-4160 Contact Point
5. 1P-5513 Contact Point
6. 5P-2056 Contact Point

8T-5300 Indicator Group, Timing



6V-3072 Case, Carrying

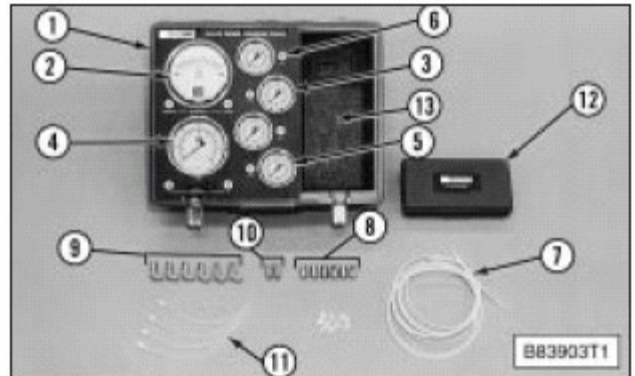


1. 6V-3072 Case
2. Form SEHS7920 Label for 6V-3072 Case, "6V-4060 Engine Set Point Indicator"
3. 6V-4863 Foam Insert
4. 6V-6045 Case¹
5. Form SEHS8009 Label for 6V-6045 Case, "Accessories"

151

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1U-5470 Engine Pressure Group

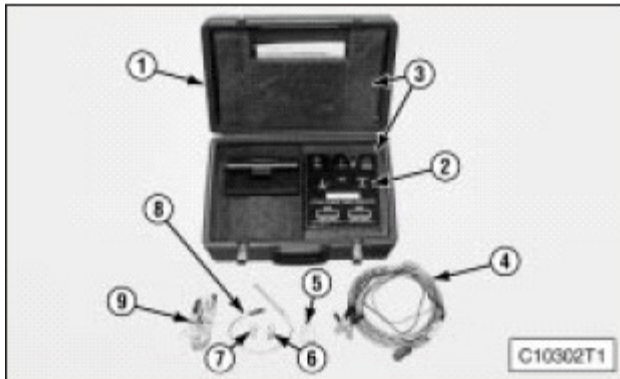


1U-5470 Engine Pressure Group

1. 8T-0841 Case
2. 8T-0839 Differential Pressure Gauge
3. 8T-0846 Pressure Gauge
4. 1U-5469 Pressure Gauge
5. 8T-0848 Pressure Gauge (3)
6. 4C-3974 Bulkhead Fitting (8)
7. 8T-0821 Tubing, 16 m (52.5 ft)
8. 4C-3973 Straight Connector (6)
9. 4C-3972 Elbow Fitting (6)
10. 4C-3971 Union (2)
11. 6V-6132 Cable Tie (4)
12. 6V-6045 Accessories Case
Form SEES5575 Accessories Label
13. 6V-6115 Packing Set Base
14. Form SEES5677 Conversion Chart
15. Form NEEG2187 Title Decal

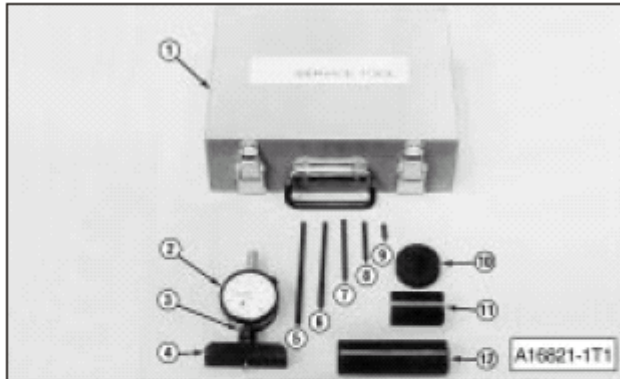
28 Diagnostic Tools

150 8T-5300 Indicator Group, Timing



1. 6V-7145 Case
2. 8T-5250 Indicator
3. 8T-3253 Packing Set
4. 5P-7366 Cable Assembly
5. 8K-4644 Fuse (5)
6. 6V-3093 Transducer Adapter, 1/4 inch NPTF (1U-5795 Ferrule Set)
7. 6V-2199 Transducer Adapter, 1/8 inch NPTF (1U-5795 Ferrule Set)
8. 6V-2197 Magnetic Transducer (TDC)
9. 5P-7362 Cable (TDC)
10. 6V-6045 Case

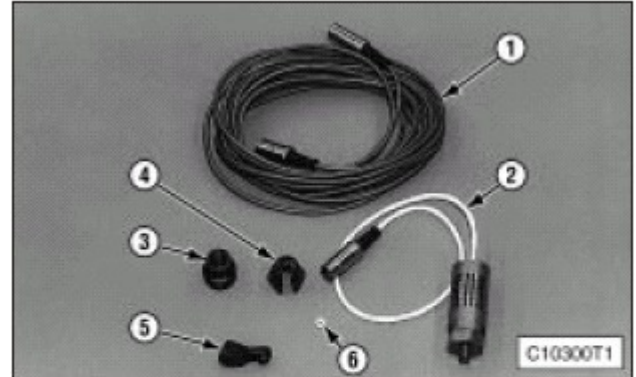
148 6V-7926 Dial Indicator Group



6V-7926 Dial Indicator Group

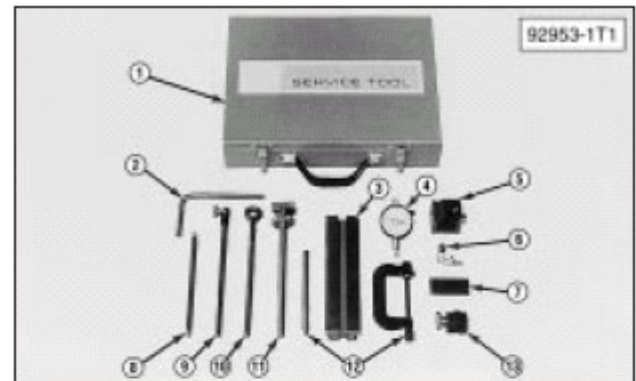
1. 6V-3073 Box Assembly
- 6V-7029 Liner Block
- 6V-7924 Holder Block
2. 8S-3158 Indicator
3. 3P-1565 Collet Clamp
4. 5P-4156 Base
5. 5P-4163 Point, Contact, 120.65 mm (4.75 in) long
6. 5P-4162 Point, Contact, 95.25 mm (3.75 in) long
7. 5P-4161 Point, Contact, 69.85 mm (2.75 in) long
8. 3S-3270 Point, Contact, 44.45 mm (1.75 in) long
9. 5P-4160 Point, Contact, 19.05 mm (.75 in) long
10. 5P-4159 Gauge Stand
11. 5P-4158 Gauge, 50.8 mm (2 in)
12. 5P-4157 Gauge, 101.6 mm (4 in)

15 8T-5301 Adapter Group, Diesel Timing



1. 6V-2198 Cable
2. 6V-7910 Transducer
3. 5P-7436 Adapter
4. 5P-7437 Adapter
5. 5P-7435 Adapter
6. 6V-3016 Washer

149 8T-5096 Dial Indicator Test Group

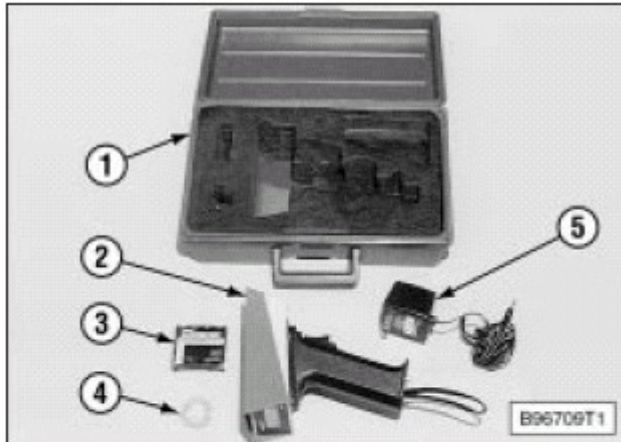


8T-5096 Dial Indicator Test Group

1. 6V-3072 Box
- 2P-8311 Block
2. 7H-1946 Arm
3. 7H-1941 Base
4. 7H-1942 Indicator
5. 8S-2329 Base
6. 7H-1940 Universal Attachment
7. 7H-1947 Holder
8. 8S-2327 Post
9. 7H-1945 Holding Rod
10. 7H-1645 Holding Rod
11. 7H-1944 Post
12. 7H-1943 Clamp
13. 7H-1948 Snug

28 Diagnostic Tools

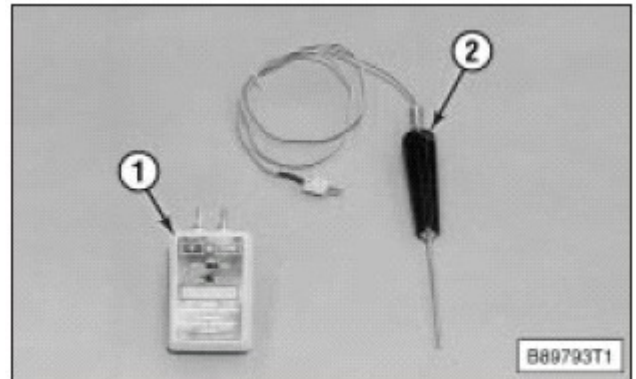
257 1U-6602 Photo-Tach Group



1U-6602 Photo-Tach Group

1. 6V-3073 Case
2. 1U-7771 Tachometer
3. 1U-9533 Battery (4)
4. 1U-6605 Reflective Tape
5. 4C-3024 or 161-8384 Recharger, 110/220 VAC. 4C-3024 (older units) photo-tach has 2.54 mm (.10 in) hole for charger connection. 161-8384 (newer units) photo-tach has 6.35 mm (0.25 in) hole with center pin for charging connection.

6V-9130 Temperature Adapter Group



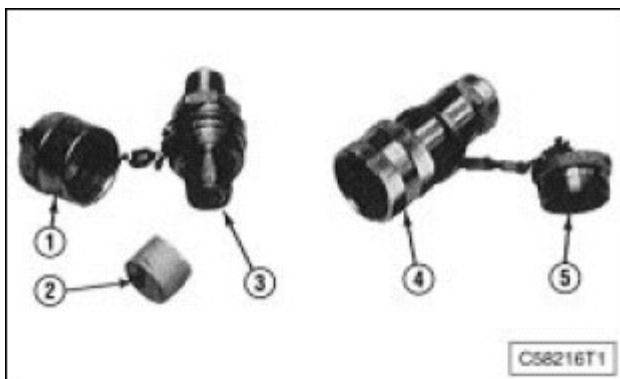
6V-9130 Temperature Adapter Group

- # 224 → 1. 6V-9129 Temperature Adapter

Probes

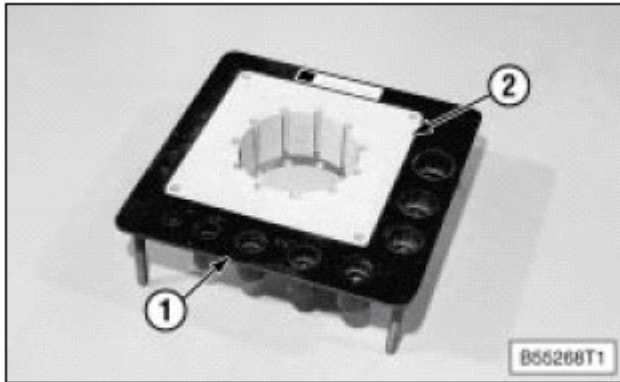
Part No.	Length	Diameter	Application
8T-0936	3.5 in	1/8 in	Probe seals
8T-0935	2.5 in	1/8 in	Probe seals
8T-0934	1.5 in	1/8 in	Probe seals
8T-0933	1.0 in	1/8 in	Probe seals
# 228 → 6V-9055	6 in	1/4 in	Exhaust (bent)
6V-9131	6 in	1/8 in	Hand held
8T-5334	Surface		Hand held

48 Service Coupler Assemblies



1. 1P-7437 Cap
2. 1P-2378 Cap, Dust
3. 1P-2375 Coupler Assembly (male)
4. 1P-2376 Coupler Assembly (female)
5. 1P-2377 Plug, Protective

Turbine Holders



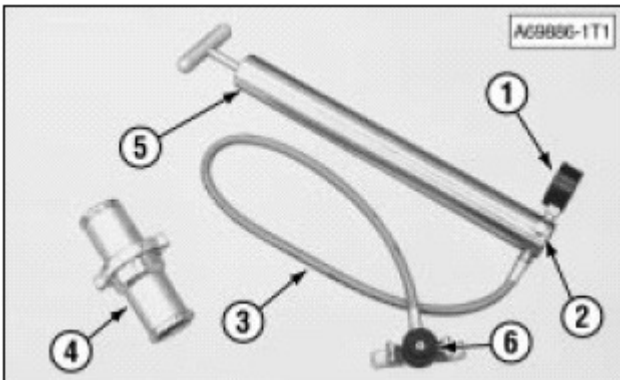
2. Turbine Holders (one shown);

265 → 8S-9944, T-12

249 → 1U-5429 Pliers, Snap Ring

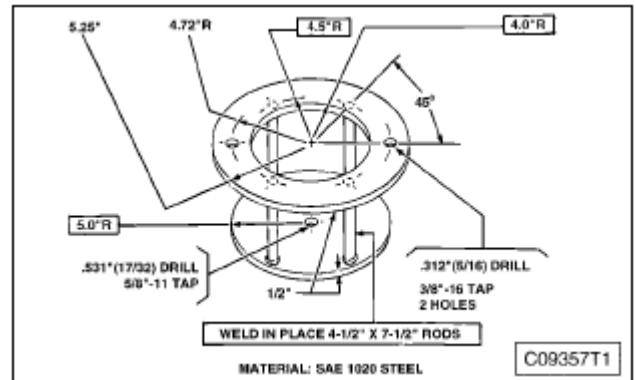


219 → 9S-8140 Pump, Pressurizing

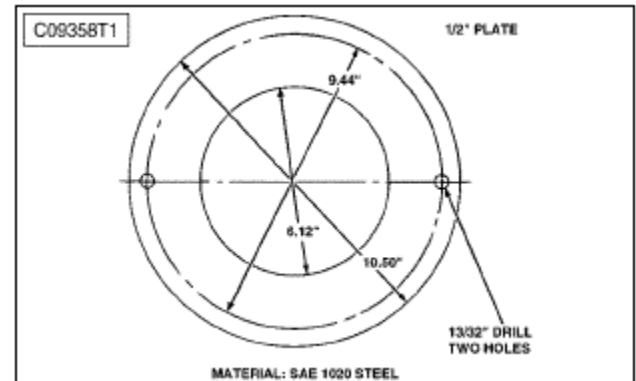


1. 6V-7775 Gauge 0-205 kPa (0-30 psi)
2. 2P-2331 Valve, Release
3. 3R-3810 Hose
4. 2P-2329 Adapter
6V-2001 Bushing
5. 9S-8139 Packing (Internal)
6. 6V-0117 Bushing

134 → FT0165 Fixture, Modified



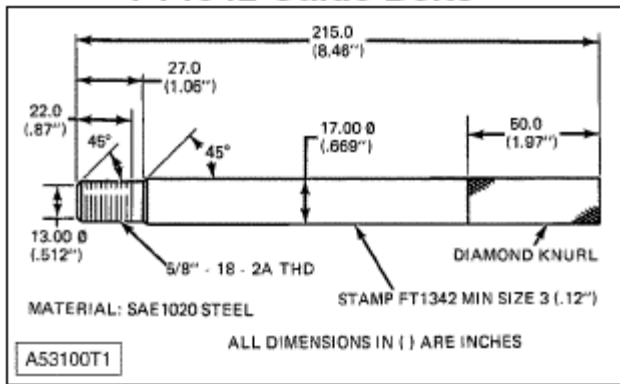
133 → FT0168 Fixture Adapter



157 → 5P-2686 Installation Tool

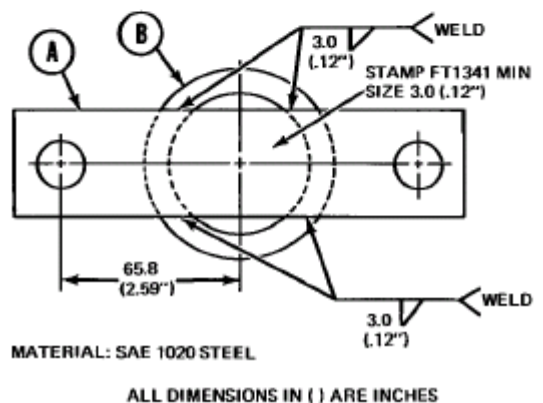
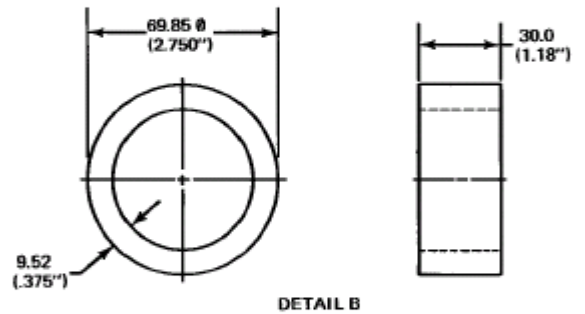
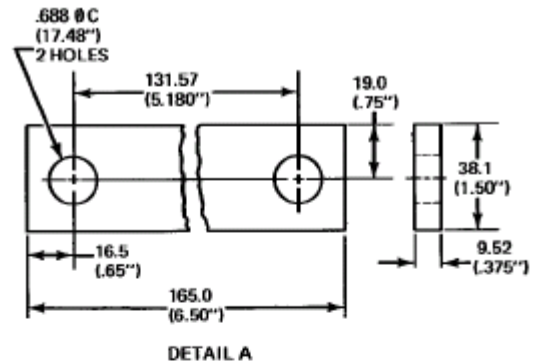


#144 → FT1342 Guide Bolts



FT1342 Guide Bolt (two required)

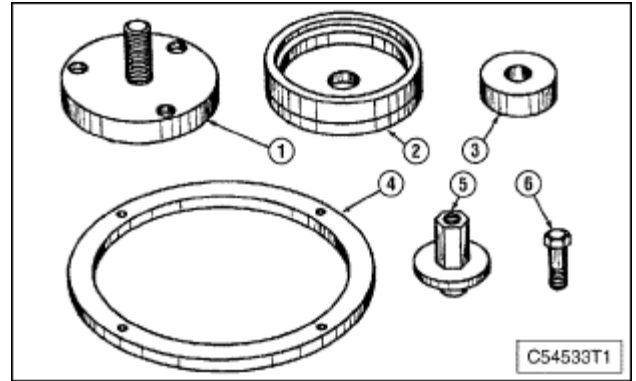
35 → FT1341 Bracket Assembly



A53101T1

Engine Tools

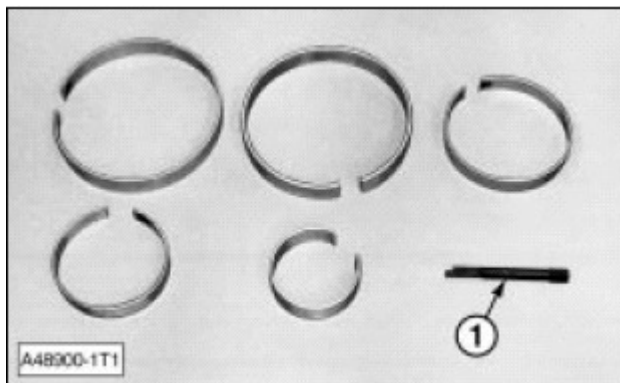
Crankshaft Seal and Wear Sleeve Installation Tools (Silicone and Hydrodynamic)



Crankshaft Seal and Wear Sleeve Installation Tools
CURRENT ENGINES

	Location	(1) Locator	(2) Installer	(3) (4) Other Parts	(5) Nut	(6) Bolts	Qty
3300 Engines — Silcon Seals — SMHS7100							
# 155	→ Rear		5P-7298				
3300 Engines — Hydrodynamic Seals — SMHS8508							
# 236	→ Rear Gear	9S-8871				9S-8890	
# 28	→ Train						
# 24	→ Front 9Y-9895 —					7F-8022	
3400 Engines — Silcon Seals — SMHS7100 Hydrodynamic Seals — SMHS8508							
# 22	→ Front					5P-1737	
	→ Rear					5P-1737	
D334, 1674 ¹ and 4.75 inch Bore Engines — Silcon Seals — SMHS6959-01							
# 178	→ Front				9S-8858		
# 174	→ Rear	9S-8875	9S-8550				
# 239	→						

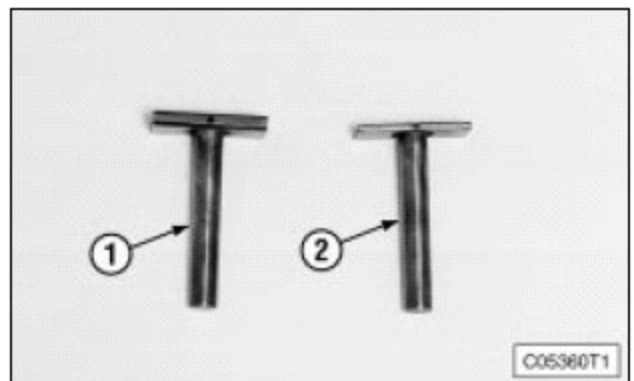
71 → 5P-7318 Wear Sleeve Distorter Group



Distorter Rings:

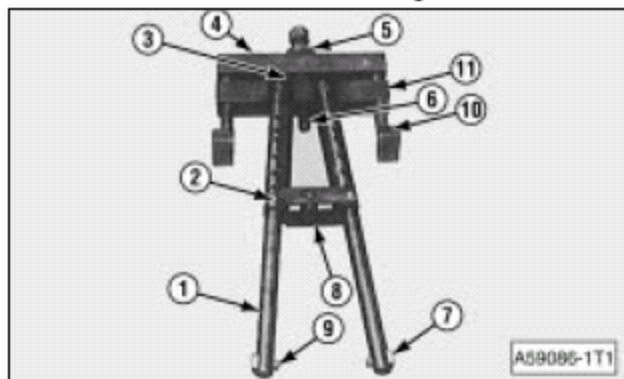
- # 69 → 5P-7313 — 3300 Series, Rear
- 5P-7314 — 3400 Series, Front and Rear
- # 70 → 5P-7315 — 3300 Series, Front
- 5P-7316 — 5.4 inch and V-Engines, Front
- 5P-7338 — 1100, 3100, 3200 Series, Rear

234 → 2P-5518 Bearing Removal and Installation Tool



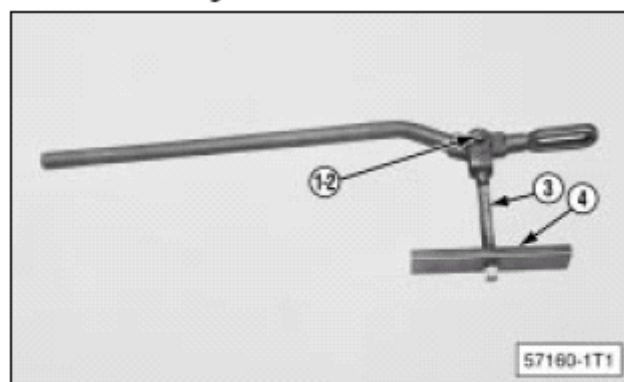
- 1. 2P-5517 Bearing Tool
- 2. 2P-5518 Bearing Tool

208 → 5P-8665 Puller, Cylinder Liner



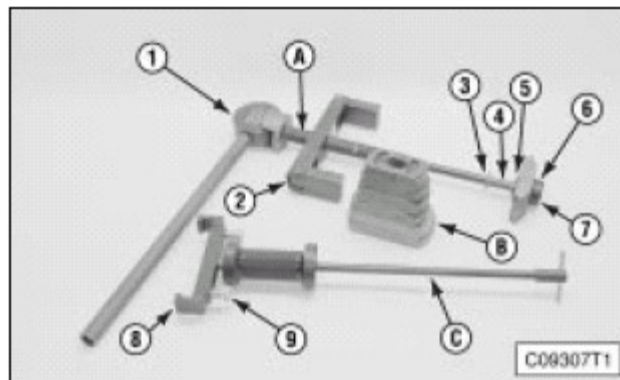
1. 5P-8672 Arm Assembly (two)
2. 5P-8666 Pin (two)
3. 5P-8667 Bushing
4. 131-6119 Plate Assembly, Top
5. 5P-8669 Bearing Assembly
6. 5P-8668 Bolt
7. 5P-8671 Foot (two)
8. 6V-4133 Bracket, Wedge (see information above)
9. 2D-4534 Screw (two)
10. 8T-5103 Arm Assembly (two)
11. 131-6118 Bar, Lifting
12. 8T-5104 Spring (two) (Part of Item 4)
13. 8T-5105 Plunger (two) (Part of Item 4)

208 → 2P-8260 Installer Group, Cylinder Liner



1. 3H-8538 Pin
2. 3B-4615 Pin, Cotter
3. 2P-8258 Rod
4. FT1543 Plate

5P-3570 Cylinder Liner Puller Group *Canceled*



B. Puller Plates

1P-2392 Plate, Puller, 4 inch Bore

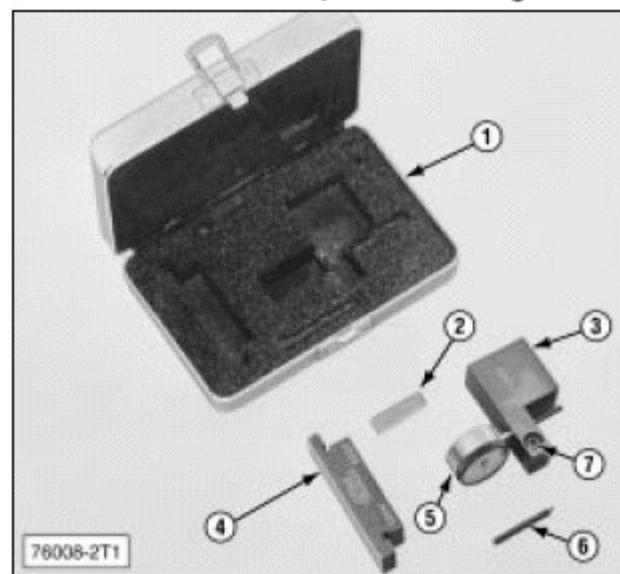
1P-2393 Plate, Puller, 4.5 inch Bore

194 → 1P-2394 Plate, Puller, 4.75 inch Bore

1P-2395 Plate, Puller, 5.125 inch Bore

191 → 1P-2396 Plate, Puller, 5.4 inch Bore

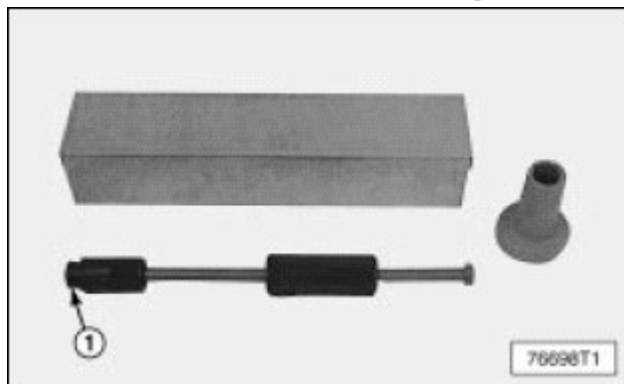
208 → 8T-0455 Tool Group, Liner Projection



1. 6V-6045 Case
- 8T-0453 Block
2. 2P-5486 Gauge Block
3. 1P-2402 Gauge Body
4. 1P-5507 Gauge
5. 1P-2403 Dial Indicator
- 1P-5512 Contact Point (Part of 1P-2403)
6. 1P-5513 Contact Point
7. 5S-2671 Bolt

Engine Tools

72 → 5P-0944 Puller Group, Dowel



- # 128 → 1. 5P-0939 Extractor, 6,25 mm (.250 inch)
 # 129 → 5P-0942 Extractor, 11,13 mm (.438 inch)
 2. PT9750 Collar (two), Porta-Tool
 3. Slide Hammer
 4. Shaft
 5. Retriever

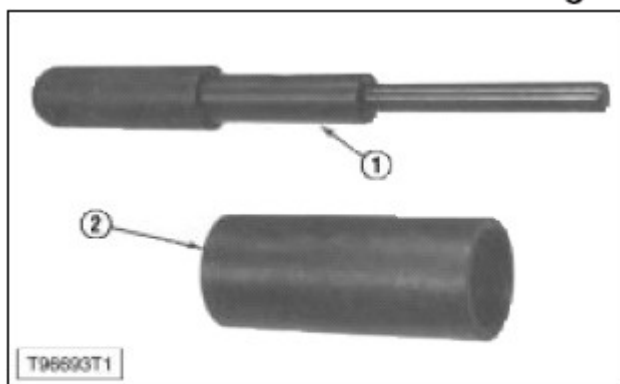
37

→

39

→

Valve Guide Drivers and Bushings



Typical Guide Driver and Bushing

1. Driver
 2. Bushing

Valve Guide Drivers and Bushings

Bore mm (inch)	Engine and Engine Application	Driver Part No	Bushing Part No
137 (5.4)	3406, 3408, 3412	—	5P-2396
121 (4.75)	D330C, 3304, D333C, 3306	—	7S-8858

202 → 8T-0812 Puller, Cylinder Liner

201 → 6V-9448 Puller, Cylinder Liner



177 → 1B-4207 Full Nut

187 → 5P-2406 Driver, Dowel, 3400

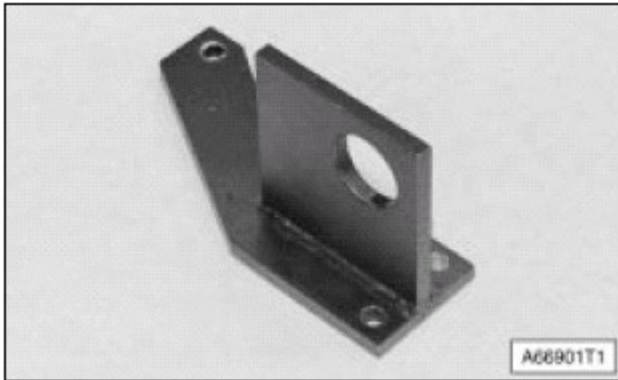


156 → 5S-1322 Inserter, Valve Keeper



Engine Tools

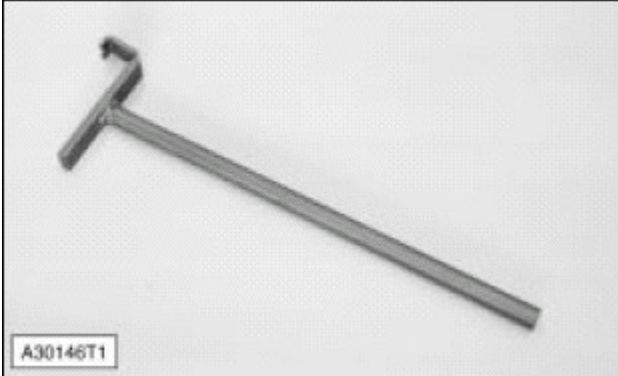
180 → 5P-8700 Lifting Bracket



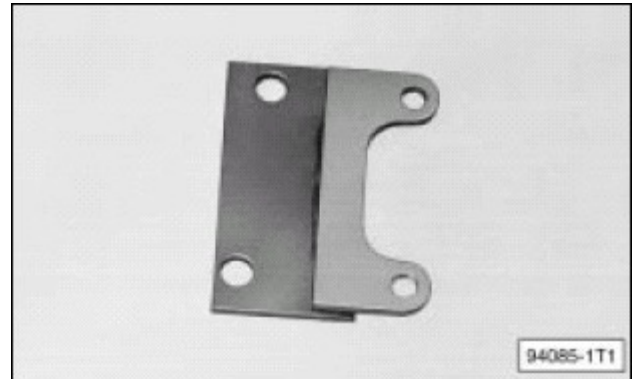
138 → 5P-0961 Wrench, Fuel Valve Adapter



168 → FT1322 Lever Assembly

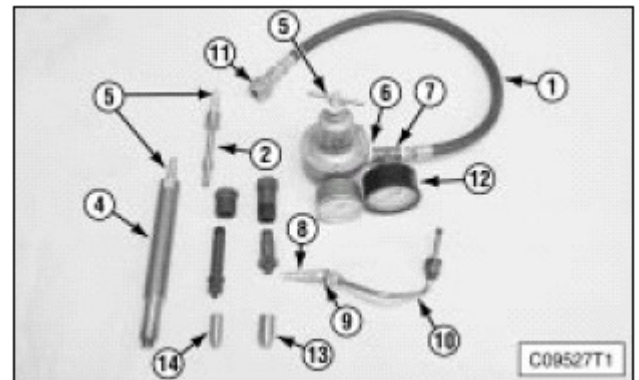


33 → 5P-1762 Bracket, Support

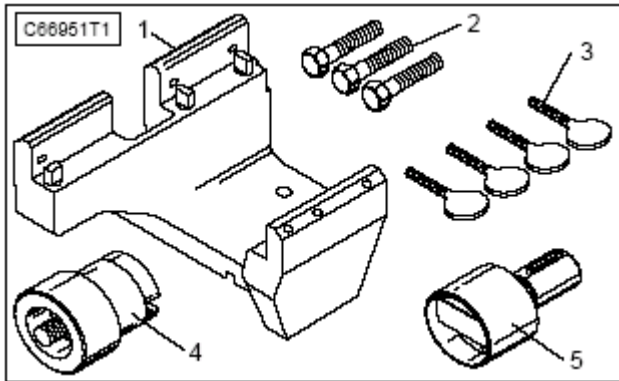


Cylinder Condition Analysis Tools

- # 58 1. 6K-5875 Hose Assembly
- # 53 2. 1P-5564 Adapter (D.I. Engines)
- # 62 3. 5K-5068 Nipple (two)
- # 54 4. 1P-5565 Adapter (Gas Engines)
- # 66 5. Norgren Regulator Model #11-002-013
- # 61 6. 3B-7767 Nipple (Modify nipple by filling with braze and drilling a 1.02 mm (.040 inch) orifice hole through braze.)
- # 63 7. 3B-7762 Tee
- #55,59 8. 6V-4142 Nipple
- # 57 9. 9S-7341 Fitting (1/4 inch tube-1/8 inch pipe)
- # 65 10. 8S-2268 Tube Assembly
- # 56 11. 6V-4143 Coupling Assembly
7S-8897 Seal (Part of 7S-8895)
- 12. 8T-0846 Gauge
- # 64 13. 1P-5569 Tip
- 14. 1P-5567 Tip



6V-3116 Adapter Group, Sleeve Metering

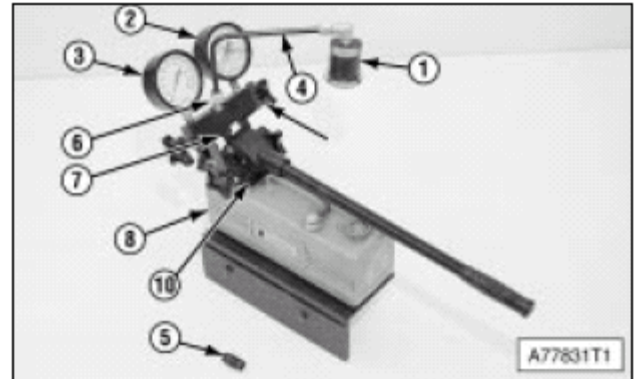


- # 34 → 6V-3116 Adapter Group Sleeve Metering
1. 2P-8315 Bracket Assembly (Qty 1)
 2. 0S-1588 Bolt (Qty 2)
 3. 1P-7395 Screw (Qty 4)
 4. 6V-2107 Adapter Assembly (Qty 1)
 5. 6V-2110 Adapter Assembly (Qty 1)

5 → 5P-7448 Adapter



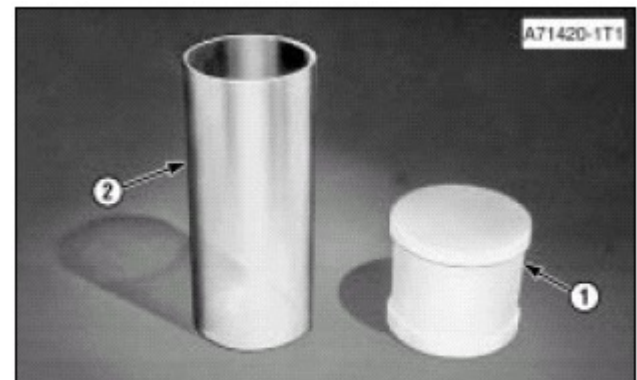
220 → 5P-4150 Tester Group, Nozzle



1. 5P-8744 Adapter Assembly (If desired, quick disconnect fittings may be installed for faster changing of nozzle adapters. Refer to Engine News of October 3, 1979, for installation instructions.)
2. 8T-0859 Gauge 25000 kPa (3600 psi)
3. 8T-0856 Gauge 6000 kPa (870 psi)
- SEHS7605 Caution Label (for 5P-4146)
4. 5P-4721 Tube (End fittings not included; included with 5P-4719 and 5P-4720)
5. 5P-4244 Adapter
6. 5P-4719 Fitting (Includes connecting fitting for 5P-4721)
- 8T-5313 Fitting
7. 5P-4243 Fitting
8. 8T-5313 Filter
9. 4J-7533 Seal (one on each hand valve, qty. 5)
10. 6V-0183 Gasket (between reservoir and pump)

137 → 8S-2270 Collector, Fuel

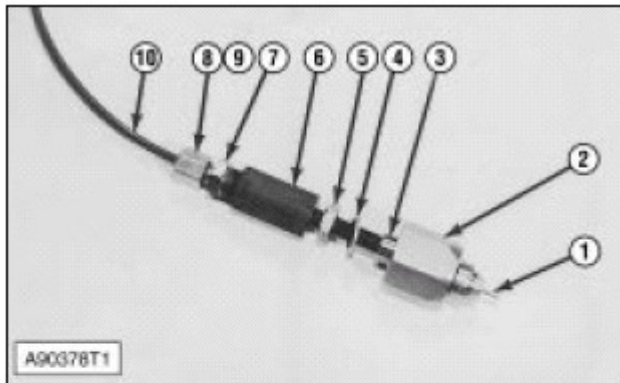
127 → FT1384 Extension



1. 8S-2270 Collector, Fuel
2. 1U-8857 Extension or FT1384 Extension

Engine Tools

136 → 6V-2023 Adapter Group, Flow Checking



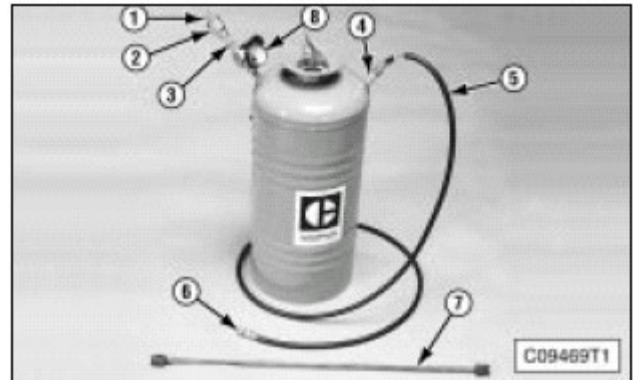
6V-2023 Adapter Group

1. 6V-2018 Pin
2. 6V-2019 Nut
3. 6V-2020 Adapter
4. 6L-3921 Washer, Sealing (three)
5. 6F-0612 Nut, Jam
6. 6V-2021 Fitting
7. 5P-2948 Connector
8. 4K-9822 Nut
9. 4K-9821 Sleeve
10. 5P-5630 Tube, 20 cm (8 inch)

14 → 6V-6175 Adapter, Torque



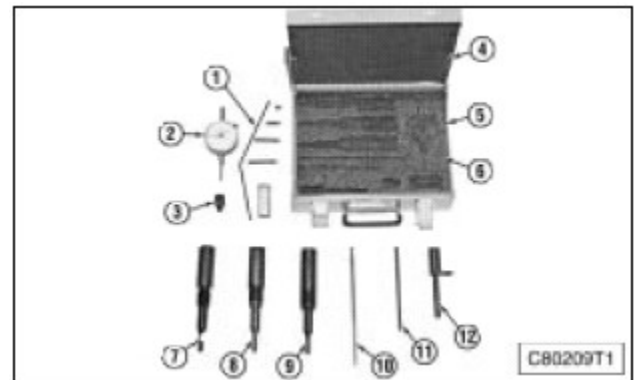
262 → 1P-0540 Tool Group, Flow Checking



Service Parts:

1. 8S-4600 Nipple
2. 8S-4599 Coupling Assembly
3. 5K-2408 Fitting
4. 3B-6488 Coupling, Pipe
5. 5J-4634 Hose Assembly
6. 4M-5317 Bushing
7. 7M-1999 Tube Assembly
8. 5P-2413 Regulator Assembly

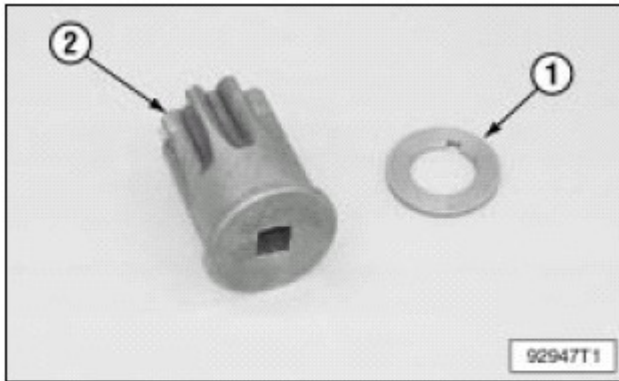
152 → 8T-5246 Indicator Group, Engine Timing



1. 5P-7276 Container (contact points not included)
2. 6V-3075 Indicator
3. 5P-4814 Collet
4. 6V-6105 Block
5. 6V-3072 Case
6. 8T-5247 Block
7. 8T-5339 Adapter
8. 8T-5340 Adapter
9. 8T-5338 Adapter
10. 3S-3264 Rod, 180,9 (7.12 in)
11. 8S-2296 Rod, 133,4 (5.25 in)
12. 5P-7266 Adapter

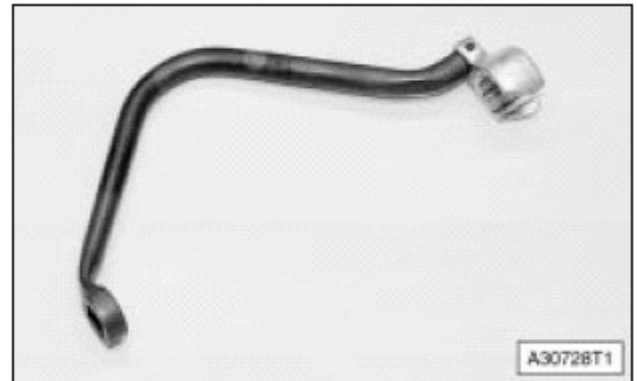
Engine Tools

188 → Engine Turning Tool

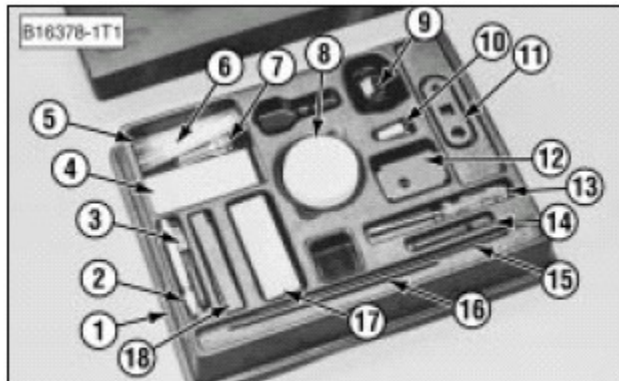


1. 9S-9114 Spacer
2. 9S-9082 Turning Tool, 1/2 inch drive

268 → 5P-5195 Wrench, Fuel Line

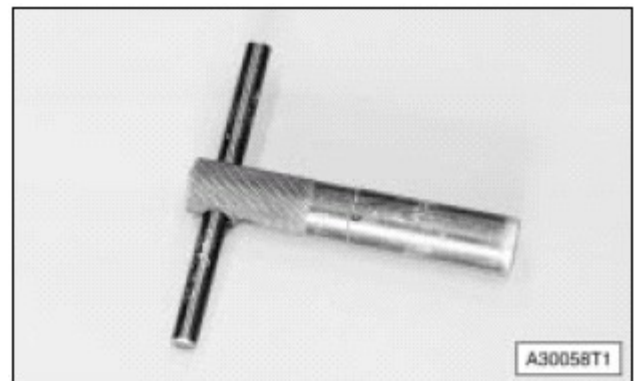


42 → 8S-2245 Tool Group, Cleaning

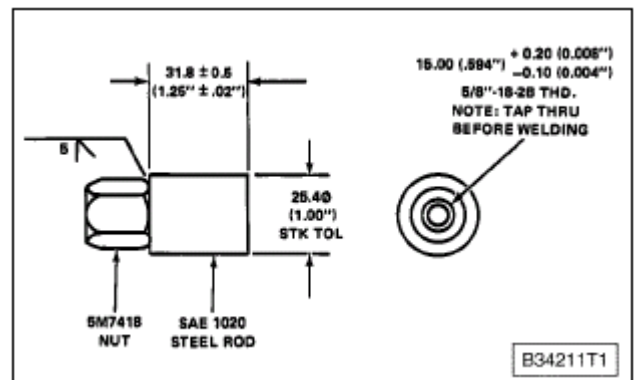


1. 8S-2262 Case Assembly
2. 8S-2256 Vise Assembly
3. 5P-0958 Retractor Assembly
4. 8S-2249 Pad
5. 8S-2246 Wire Assembly 0,20 (.008 in)
6. 8S-2247 Wire Assembly 0,28 (.011 in)
7. 5P-4813 Socket
8. 8S-2259 Compound, Lapping
9. 8S-2257 Loupe
10. 6V-4979 Seal Tool
11. 2P-5487 Adapter
12. 8S-2250 Holding Tool
13. 6V-9124 Screwdriver
14. 8S-2254 Retractor Assembly
15. 8S-2255 Scraper
16. 8S-2251 Drill
17. 8S-2258 Brush, Brass Wire
18. 8S-2260 Stone, Honing

131 → 5P-6229 Extractor

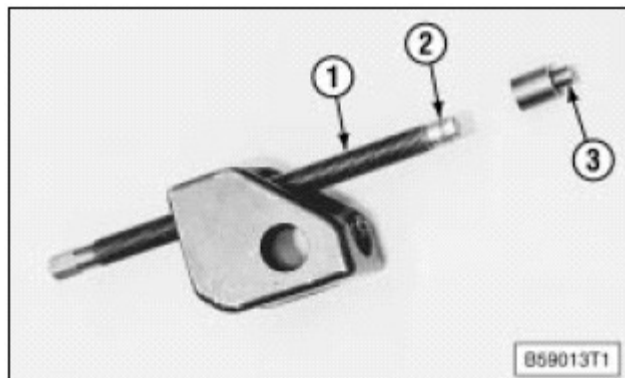


1 → FT1533 Adapter, Nozzle



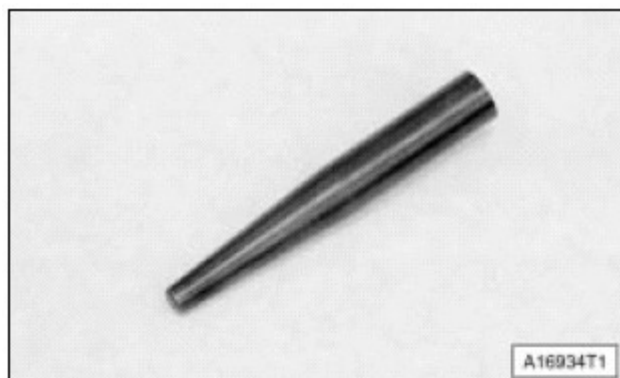
Engine Tools

176 → 6V-6980 Puller Group, Nozzle

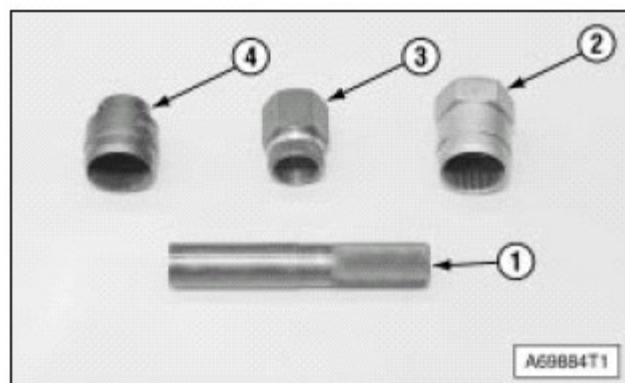


1. 6V-6197 Screw
2. 6V-6198 Clip
3. 6V-6199 Button
4. 6V-6130 Puller, not serviced

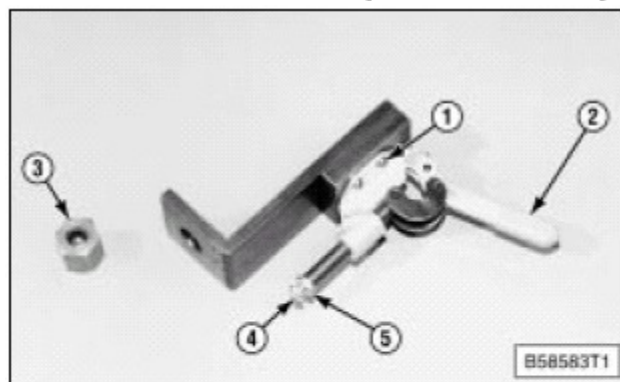
145 → 6V-7025 Guide



Fuel Injection Pump Extractors # 44 → 6V-7050 Compressor Group



130 → 1. 8S-2244 Extractor



1. 2N-3476 Screw
2. 6V-7015 Clamp Assembly
3. 5M-7418 Nut
4. 4B-1228 Screw
5. 4B-2046 Nut

9S-6326 Tool Group, Rack Bearing Installation

1. 9S-6327 Plate Assembly
2. 8H-9208 Dowel, set of three
3. 1B-2790 Bolt (two)
4. 6V-4818 Driver

73 →



Engine Tools

179 → 6V-4180 Tool Group, Off-Engine Lifter Setting

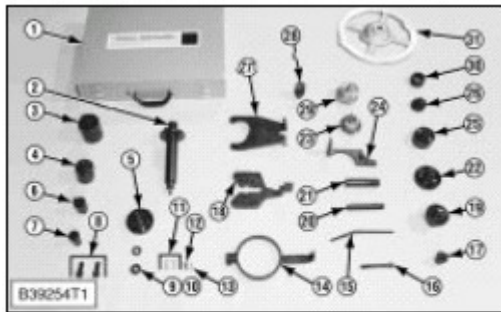


Fig. 1 — 6V-4180 Off-Engine Lifter Setting Tool Group

1. 9S-6332 Box Assembly
- 6V-4181 Tool Holder Block
- 9S-8105 Liner
- (other items identified in the Fuel System Charts)

Application Charts for 6V-4180 Tool Group

	Forged Body Fuel System						
Components of 6V-4180 Tool Group (Fig. 1)	D311	D3400	D326	D346	D353	D379	641
	D312	D4400	D337	D348		D398	650
	D315	D4600	D343	D349		D399	651
	D318	D6100	619C				657
	D339	D6600	824A				660
	D342	D7700	1693				666
	D364	D8800					
	D375	D11000					
	D386	D13000					
	D397	D17000					
	D468						

2. 5P-6574 Shaft				1			
3. 5P-6564 Shaft						1	
4. 5P-6566 Shaft			1 ²				1
5. 5P-6568 Shaft				1			
6. 7F-8751 Shaft	1						
9. 2S-6160 Washer	1	1	1	1	1	1	1
11. 0S-1594 Bolt	1	1	1	1	1	1	1
12. 0S-0509 Bolt	1	1	1	1	1	1	1
13. 0S-1617 Bolt		1					
18. 1P-7415 Pointer	1		1	1	1	1	1
19. 5P-6572 Shaft							
20. 9M-4567 Wrench	1	1	1	1	1	1	1
21. 9M-4568 Wrench	1	1		1	1	1	1
31. 1P-7410 Plate	1	1	1	1	1	1	1

Additional Tools Needed, But Not Included, In 6V-4180 Tool Group (Fig. 2)

32. 5P-6570 Shaft		1					
36. 6V-2012 Gauge Grp.	1 ¹	1 ¹	1 ¹	1 ¹	1 ¹	1 ¹	
37. 6V-7926 Indicator	1	1	1	1	1	1	1
38. 9H-3970 Pointer		1					
39. 9M-4567 Wrench	1 ¹			1 ¹	1 ¹		

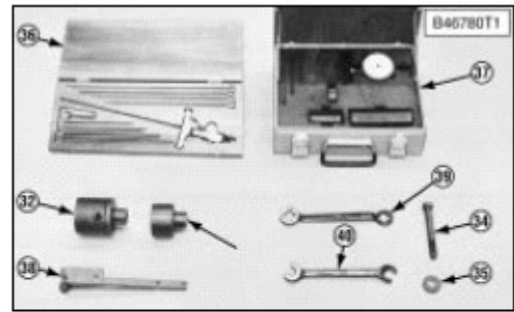


Fig. 2

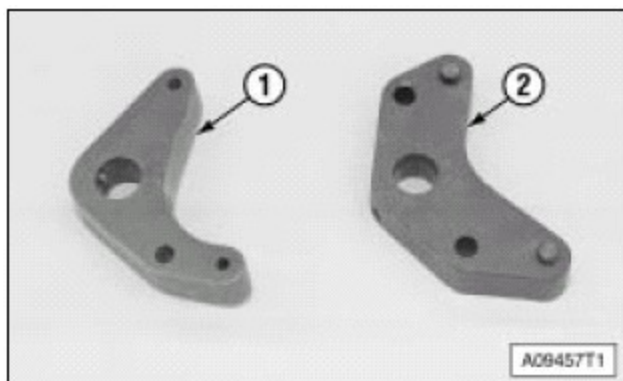
32. 5P-6570 Shaft Assembly
33. 8S-2272 Shaft Assembly
34. 1B-3680 Bolt
35. 3F-1417 Washer
36. 6V-2012 Gauge Group
37. 6V-7926 Indicator Group
38. 9H-3970 Pointer
39. 9M-4567 Wrench
40. 9M-4568 Wrench

	Compact Fuel System						
Components of 6V-4180 Tool Group (Fig. 1)	D311H	D334	D336	1140	3406	3408	
	D320	D343	1676	1145		3412	
	D330D	1674		1150			
	D333	6193		1160			
	1670			3145			
	1673			3150			
	D8			3160			
	583						
	3204						
	3304						
	3306						

7. 5P-4158	1	1	1	1	1	1	
8. 1F-1375 Bolt			2				
9. 2S-6160 Washer	1	1	1		1	1	
10. 2S-0932 Washer				1			
11. 0S-1594 Bolt			1	1	1		
12. 0S-0509 Bolt	1	1	1		1		
13. 0S-1517 Bolt		1				1	
14. 8S-2280 Pointer				1			
15. 6V-6019 Pin							1
16. 1J-6298 Bolt				1			
17. 2M-5218 Shaft	1						
18. 1P-7415 Pointer			1				
19. 5P-6572 Shaft		1					
22. 7S-5803 Shaft			1				
23. 6V-3035 Shaft	1 ²						
24. 5P-1768 Pointer					1	1 ⁵	
25. 9S-4446 Shaft				1			
26. 5P-3601 Adapter						1	
27. 1P-7420 Pointer	1	1					
28. 5P-1761 Shaft					1		
29. 6V-3066 Shaft	1 ⁷						
30. 5P-0129 Sleeve	1 ⁴						
31. 1P-7410 Plate	1	1	1	1	1 ⁵	1	

Engine Tools

5P-1744 Plate, Alignment



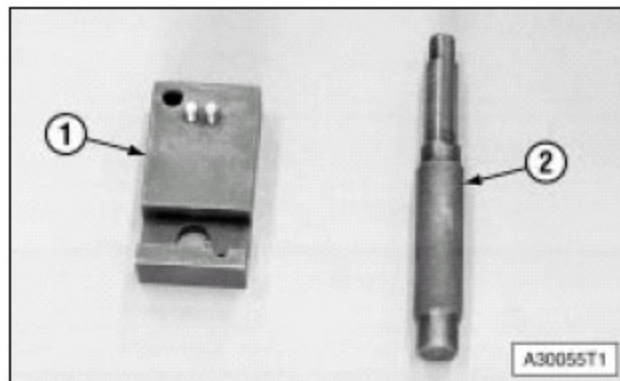
195 → 1. 5P-1665 Plate
2. 5P-1744 Plate

154 → FT1251 Stand, Pump Housing



5P-6217 Fixture

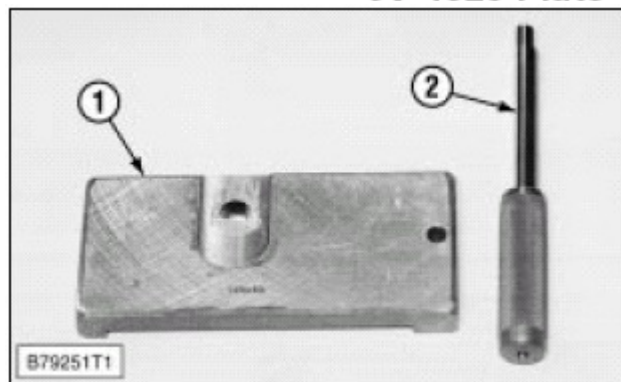
5P-6218 Driver, Bearing



135 → 1. 5P-6217 Fixture
74 → 2. 5P-6218 Driver

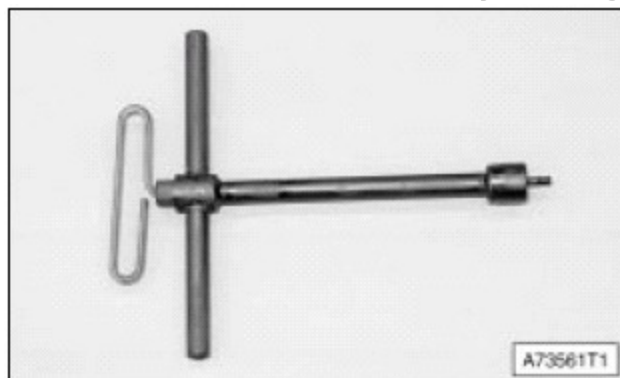
6V-4824 Driver

6V-4825 Plate



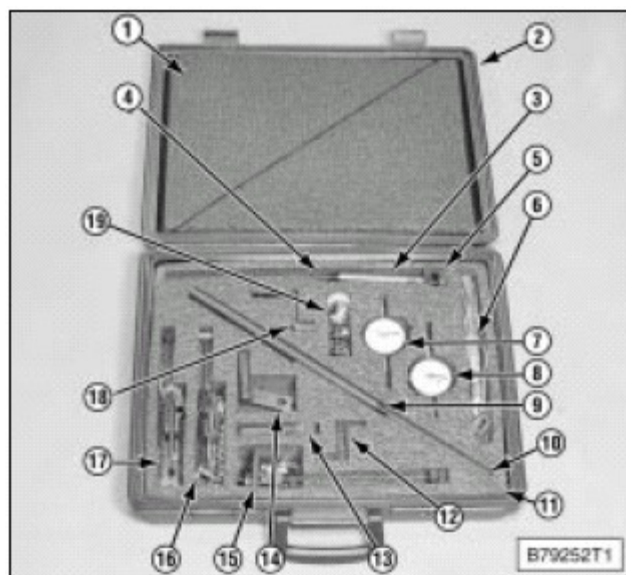
196 → 1. 6V-4825 Plate
75 → 2. 6V-4824 Driver

231 → 8T-9173 Rack Adjusting Tool



Engine Tools

230 → 6V-9128 Tool Group, Rack Position



1. 6V-9127 Liner
2. 6V-9125 Case
3. 9S-0239 Adapter
0S-1616 Bolt, 25,4 mm (1/4 inch-20 x 1.00 inch)
4. 5S-8090 Rod
5S-8086 Point, Contact
5. 9S-8521 Rod
6. 8S-4627 Tester, Circuit or
8T-0500 Tester, Circuit
7. 6V-3075 Indicator, Dial
8. 6V-6106 Indicator, Dial
9. 5S-8157 Extension
10. 5S-8088 Rod Assembly
5S-8086 Point, Contact
11. 8T-7687 Block
12. 9S-2017 Spring
13. 9S-7344 Clamp Assembly
0S-1616 Bolt, 25,4 mm (1/4 inch-20 x 1.00 inch)
14. 9S-7343 Bracket Assembly
2A-0762 Bolt, 16,0 mm (1/4 inch-20 x 7/8 inch)
15. 9S-0227 Bracket Group
16. 9S-0238 Bracket Group
17. 9S-7350 Bracket Group
18. 9S-0225 Bracket Assembly
2H-0191 Bolt, 16,0 mm (10-24 x .625 inch)
19. 5P-7276 Container
3S-3269 Point, Contact, 25,4 mm (1.0 inch)
9S-8883 Point, Contact, 12,7 mm (0.5 inch)
5S-8086 Point, Contact, 6,35 mm O.D. (0.25 inch O.D.)
9S-0229 Point, Contact, 9,5 mm (0.4 inch)
3S-3268 Point, Contact, 6,35 mm (0.25 inch)
9S-8903 Point, Contact, 9,50 mm (0.4 inch)
8S-3675 Point, Contact, 3,1 mm (0.13 inch)
3P-1565 Collet
5P-4814 Collet
9S-8518 Plug
9S-8519 Plug

263 → 6V-6070 Tool Group



6V-6070 Tool Group Components

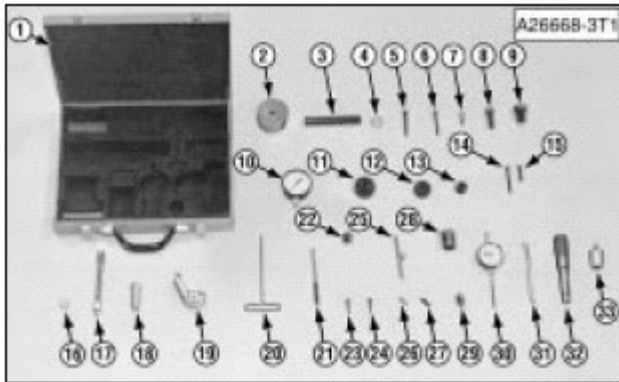
- 6V-3072 Case (Plastic)
- 6V-6104 Block
- 6V-6105 Block
- 6V-4186 Pin
- 6V-2017 Tool
- 0S-1614 Bolt (Qty. 2)
- 6V-6106 Indicator
- 6V-2030 Extension
- 9S-8903 Point
- 5P-4814 Collet (Qty. 2)
- 8T-9198 Bracket Assembly (Rack Indication)
- 6V-6108 Arm (Part of 6V-0109)
- 2A-0762 Bolt
- 8H-9178 Bolt (Qty. 2)
- 0S-1615 Bolt
- 6V-2014 Bracket Assembly (see note below)

6V-2015 Arm (Part of 6V-2014) (Qty. 2)

- 217956 Bolt
- 5B-5689 Gasket
- 8H-3128 Bolt (Qty. 3)
- 6V-3075 Indicator
- 9S-0229 Point
- 6V-2105 Tool Group
- 2P-8264 Socket
- 2P-8265 Socket
- 6V-6151 Adapter (Overfueling Spring Compressor)
- 6V-7941 Compressor Assembly
- 6V-7942 Hook
- Form SEHS8024
- Form NEEG2119 (Label)
- Form SEES5641 (Layout Chart)

Engine Tools

258 → 5P-4203 Sleeve Metering Field Service Tool Group

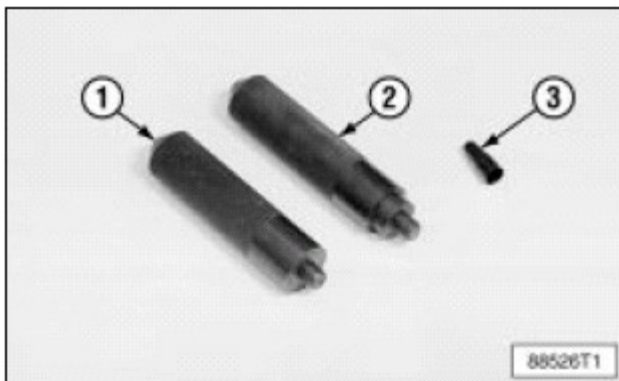


5P-4203 Sleeve Metering Field Service Tool Group

1. 2P-8306 Box Assembly
- 3P-1548 Block
- 3P-1549 Block
2. 5P-0301 Driver
3. 1P-0529 Handle
4. 4B-4280 Washer
5. 1D-4538 Bolt
6. 1D-4533 Bolt
7. 3K-4910 Screw

- # 30 →
8. 0S-1603 Bolt
 9. FT1632 Bolt³
 10. 8T-0853 Gauge
 - 8B-8817 Plug (not shown)

Fuel Transfer Pump Assembly Tools



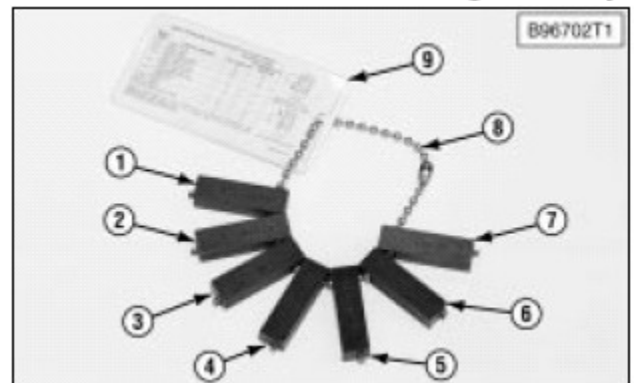
- # 245 → 1. 5P-2391 Driver, Seal
- # 246 → 2. 5P-2392 Driver, Seal

11. 5P-0319 Driver
12. 5P-0318 Driver
13. 1P-0463 Plate
14. 6L-5551 Bolt
15. 4L-7124 Bolt
16. 4B-4276 Washer (four)
17. 5D-9231 Connector (two)²
- 3J-7354 Seal (two)
- 3B-7734 Nipple
- 6J-3958 Coupling
18. 3P-2210 Socket
19. 5P-6602 Adapter¹ (see note)
20. 5P-4205 Wrench¹

- # 183 →
21. 3P-1544 Pin
 22. 4H-0553 Fitting
 23. 5P-0299 Pin, 19,2831 mm (0.7592 in)
 24. 5P-0298 Pin, 17,8587 mm (0.7028 in)
 25. 5P-4209 Gauge¹
 26. 3J-6956 Spring
 27. 8S-7271 Setscrew
 28. 8S-2243 Wrench
 29. 3P-1565 Collet
 30. 3P-1567 Indicator includes:
 - 5P-6531 Point, Contact, 57,2 (2.25 in)¹
 - 5P-4228 Spring¹
 31. 5P-0302 Bar
 32. 6V-0029 Gauge Tool, Roll Pin Depth²
 33. 6V-3071 Guide, Seal²

- # 31 → FT1632 Bolt is made from 2H-3740 Bolt.

189 → 1U-6431 Gauge Group



1U-6431 Gauge Group

1. 8T-3144 Gauge Assembly
2. 8T-3145 Gauge Assembly
3. 8T-3146 Gauge Assembly
4. 8T-3147 Gauge Assembly
5. 8T-3148 Gauge Assembly
6. 8T-3149 Gauge Assembly
7. 1U-6432 Gauge Assembly
8. 5P-4227 Holder SEES5678-02 Instruction Card
9. 6V-3196 Chain

Engine Tools

Piston Ring Expanders

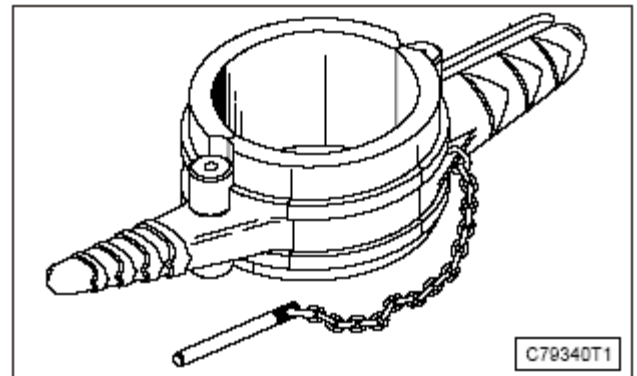


Piston Ring Expander Selection

Engine Bore mm (inch)	Expander Part No
120.7 (4.75)	7S-9470

126

Piston Ring Compressors



Scissors Type Ring Compressor

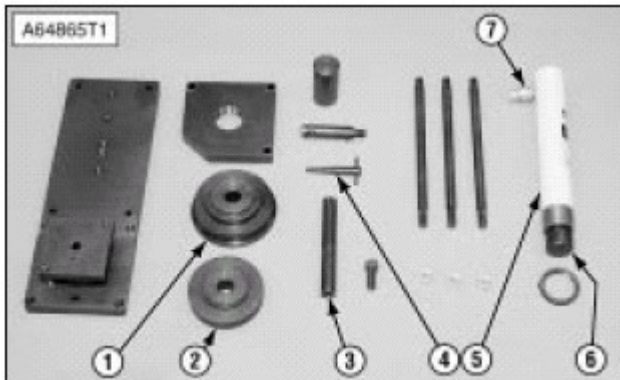
Engine Bore mm (inch)	Compressor Part No
120.7 (4.75)	5P-3525
137.2 (5.40)	5P-3526

45

46

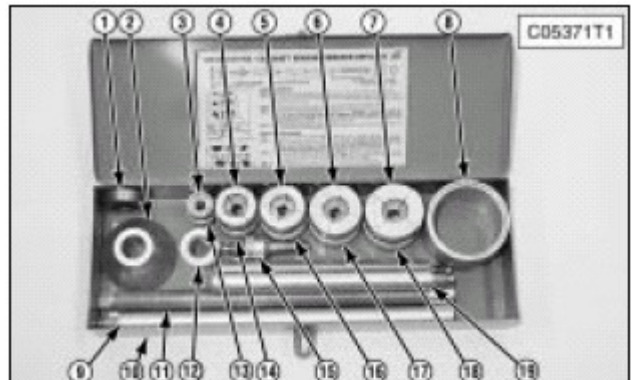
Tools for Connecting Rod Pin Bearing Removal and Installation

199 → 5P-8639 Press Group,



1. 5P-8640 Clamp Bar
2. 5P-8641 Clamp Bar
3. 5P-8643 Post Assembly
4. 5P-8642 Clamp Pin
5. 5P-9725 Cylinder Group (5P-9724 Repair Kit is available)
6. 5P-0159 Cap (Part of 5P-9725)
7. 1P-2375 Coupler Assembly (Part of 5P-9725)
- 1P-7437 Cap (Part of 5P-9725)

122 → 8S-2241 Installation and Removal Group, Camshaft Bearing



1. 8S-8287 Bearing Assembly,
2. 8S-8288 Cone
3. 1P-0552 Collet Assembly
4. 8S-8282 Collet Assembly
5. 8S-8283 Collet Assembly
6. 8S-8284 Collet Assembly
7. 8S-8285 Collet Assembly
8. 8S-8289 Tube
9. 8S-8293 Extension, Long
10. 8S-8281 Tool Box
11. 8S-8291 Shaft, Threaded
12. 8S-8290 Nut
13. 1P-0553 Nut, Backup
14. 8S-8884 Nut, Backup
15. 8S-8286 Expander, Screw
16. 8S-8883 Nut, Backup
17. 8S-8882 Nut, Backup
18. 8S-8881 Nut, Backup
19. 8S-8292 Extension, Short (two)

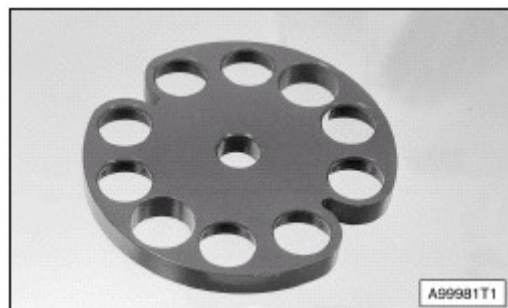
30 Power Train Tools

- # 139 → 1U-5481 Gauge Group, Pressure
140 → 1U-5482 Adapter Group, Pressure



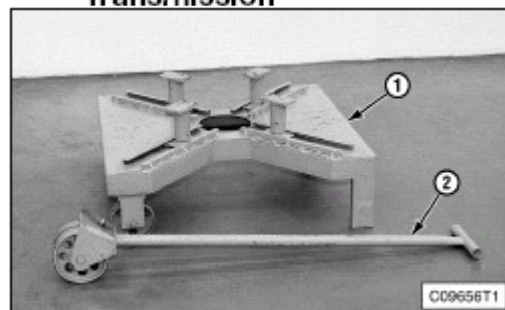
1. 1U-5481 Gauge Group, Pressure
8T-0846 Gauge, Pressure, 0-1000 kPa (0-145 psi)
8T-0848 Gauge, Pressure, 0-400 kPa (0-58 psi)
8T-0849 Gauge, Pressure, 0-2000 kPa (0-290 psi)
8T-0850 Gauge, Pressure, 0-3400 kPa (0-580 psi) (3)
8T-0851 Gauge, Pressure, 0-15 850 kPa (0-2300 psi)
8T-0852 Gauge, Pressure, 0-39 960 kPa (0-5800 psi)
C38747 Elbow, Pipe (8)
3J-1907 O-Ring (8)
6V-3965 Nipple (8)
8T-0841 Case
Form NEEG2220 Decal
Form NEEG2224 Decal

Compressor Plates



- # 192 → 5F-5034 Plate
190 → 5F-5096 Plate

- # 252 → 1P-2420 Repair Stand, Transmission



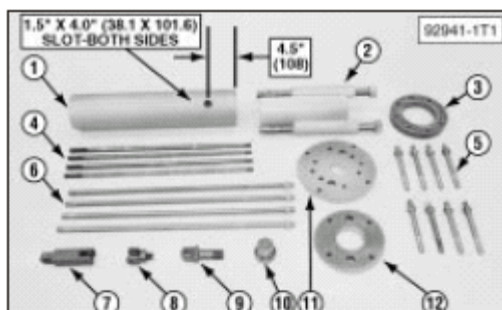
1. 1P-2420 Repair Stand
267 → 2. 1P-0090 Dolly (not part of 1P-2420)

2. 1U-5482 Adapter Group, Pressure
1J-9671 O-Ring (2)
6V-3079 Assembly, Hose (8)
6V-4143 Coupler (16)
3B-6552 Elbow, Pipe 90° 1/8 inch NPT Ext and Int Thd (2)
3D-8884 Elbow, 90° 1/4 inch NPT Ext and Int Thd (2)
3J-1907 O-Ring (12)
3J-7354 O-Ring (4)
3K-0860 O-Ring (2)
5P-2937 Adapter, 7/16 inch SAE Ext Thd x 1/4 inch NPT Int Thd (4)
5P-3501 Adapter, 9/16 inch SAE Ext Thd x 1/4 inch NPT Int Thd (6)
5P-4674 Adapter, 3/4 inch SAE Ext Thd x 1/2 inch NPT Int Thd (2)
5P-4675 Adapter, 1/2 inch SAE Ext Thd x 1/4 inch NPT Int Thd (2)
6V-0404 Seal, Bonded (2)
6V-0405 Seal, Bonded (2)
6V-0406 Seal, Bonded (2)
6V-0407 Seal, Bonded (2)
6V-3965 Nipple, Valved 9/16 inch SAE Ext Thd (4)
6V-3966 Nipple, Valved 1/4 inch NPT Ext Thd (8)
6V-3989 Nipple, Unvalved 1/4 inch NPT Int Thd (2)
6V-6560 O-Ring (2)
6V-8926 Adapter, M10x1.5 Ext Thd x 9/16 inch SAE Int Thd (2)
6V-9028 O-Ring (2)
7M-8489 Adapter, 90° 9/16 inch SAE Ext Thd x 1/4 inch NPT Int Thd (2)
8C-7574 Adapter, 1/4 inch NPT x 6 inch Ext Nipple (1)
8C-7575 Adapter, 1/8 inch NPT x 1 1/2 Ext Nipple (3)
8C-7576 Adapter, 1/8 inch NPT x 3 inch Ext Nipple (3)
8T-0841 Case
8T-7860 Connector, M12x1.5 Ext Thd x 7/16 inch SAE Int Thd (2)
8T-7861 Connector, M14x1.5 Ext Thd x 9/16 inch SAE Int Thd (2)
8T-7876 O-Ring (2)
8T-7908 Adapter, 1/8 inch—28 BSPP Ext Thd x 7/16 inch SAE Int Thd (2)
8T-7909 Adapter, 1/4 inch—19 BSPP Ext Thd x 7/16 inch SAE Int Thd (2)
8T-7911 Adapter, 3/8 inch—19 BSPP Ext Thd x 9/16 inch SAE Int Thd (2)
8T-7913 Adapter, 1/2 inch—14 BSPP Ext Thd x 3/4 inch SAE Int Thd (2)
Form NEEG2222 Decal (Adapter Case Inside Lid)
Form NEEG2221 Decal
4C-3723 Box (Yellow Plastic for Fittings)

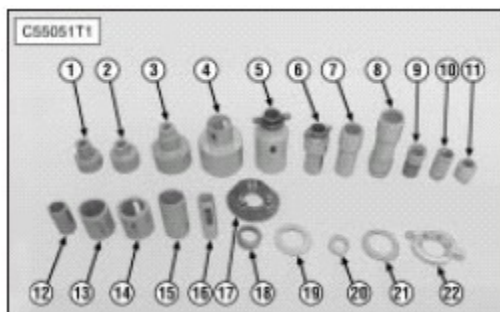
30

Power Train Tools

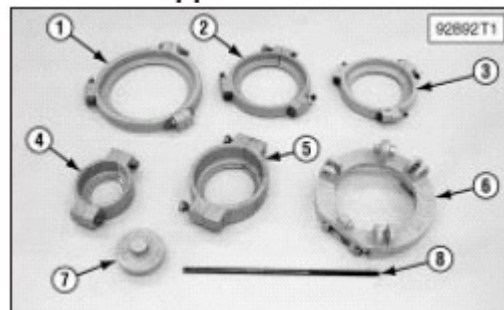
Sprocket Shaft Removal and Installation Tools



1. 5S-1430 Sleeve (100 ton) [modify earlier sleeves as shown] — Sprocket shaft removal, D5, D6B, D6C, D7E, D7F, D7G, 561, 955, 977.
 2. 5F-9890 Puller Group (70 ton) — Sprocket shaft removal, D4C, D4D, D6, early D7 and D8.
- Consists of:
- 7F-0482 Nut (two)
 - 5F-9896 Sleeve Assembly
 - 5F-9893 Stud (two)
 3. Plate (100 ton) — Sprocket shaft removal, later D8H, D9G, later 583H, 594.
 4. 1M-6756 Stud (70 ton) — Four required for sprocket shaft installation, early D8H, early D9.
 5. 5P-2677 Leg (100 ton) — Sprocket shaft removal, later D8H, D8K, D9G, D9H, later 583H, 583K, 594.
 6. 5P-2678 Stud (four) (100 ton) and 2J-3505 Nut (four) (100 ton) — Sprocket shaft installation, later D8H, D8K, D9G, D9H, later 583H, 583K, 594.
 7. 1P-3052 Link (70 ton).
 8. 6V-2052 Adapter (70 ton) — Used with the 1P-3052 Link and 1P-3053 Adapter for sprocket shaft installation on track-type machines that have puller holes in the bevel gear case. Also these tools are used to install the 992 upper lift arm pin as described in Special Instruction GMGO0806.
 9. 1P-3053 Adapter (70 ton).
 10. 5F-9889 Plug — Use with appropriate adapter and pin for sprocket shaft installation, D4C, D4D, D5, D6, D6B, D6C, D7, D7E, D7F, early D8, and D9G. 5P-2962 Plug [not shown] — Use with appropriate adapter and pin for shaft and pin installation.
 11. 8M-9012 Disc (70 ton) — Sprocket shaft installation, D7F, early D8H, early D9.
 12. 5P-2680 Plate (100 ton) — Sprocket shaft installation, later D8H, D8K, D9G, D9H, later 583H, 583K, 594.



Final Drive Sprocket, Gear, and Support Removal Tools

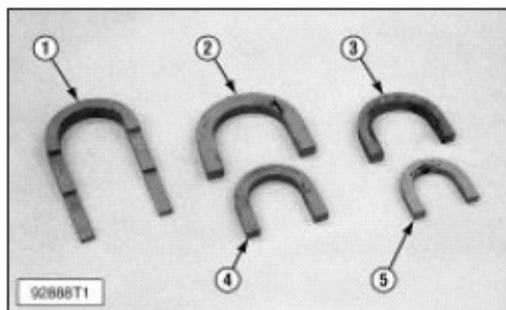


Sprocket Removal Tools

- # 181 →
1. 6H-4138 Arm — Sprocket removal¹
 2. 6H-4158 Pin (100 ton) — Sprocket removal¹
 - 7B-2499 Ring (not shown)
 3. 5P-2421 Adapter — Spoke type sprocket removal¹
 4. 6F-5404 Yoke — Sprocket removal, early Motor Graders
 5. 8F-6220 Nut — Disc type sprocket removal¹
 6. 6H-1625 Adapter — Disc type sprocket removal¹
 7. 5H-9909 Pin Assembly (70 ton) — Sprocket removal¹
 8. 5F-9306 Arm — Sprocket removal¹
- # 210 →
1. 8M-4843 Adapter Assembly (100 ton) — Sprocket installation, D8H, 583H.
 2. 8M-4839 Adapter Assembly (100 ton) — Sprocket installation, D9E.
 3. 8M-4851 Adapter Assembly (100 ton) — Sprocket installation, D, DD9G, 594.
 4. 8M-4847 Sleeve Assembly (100 ton) — Sprocket installation, D9, DD9G, 594.
- # 146 →
5. 9H-3992 Head (100 ton) and 1S-6645 Sleeve Assembly (100 ton) — Sprocket installation, D7E, D7F, 572E, 983, D8H, 583H, D9G, DD9G, 594.
 6. Pusher Group (70 ton) — Sprocket installation, D4, D4C, D4D, 941, 951, D5, D6, D6B, 561C. Consists of: 7F-5283 Head 7F-5285 Sleeve
 7. 1M-6747 Sleeve Assembly (100 ton) — Final Drive Bearing Support removal and installation, D8H, 583H; also Sprocket removal, D9, DD9G.
 8. 6H-4133 Sleeve (70 ton) 6H-4134 Sleeve (70 ton) — Final Drive Support removal, early D9.
 9. 5F-7693 Spacer Assembly (70 ton) 5F-7694 Plug (70 ton) 7S-9484 Spacer Assembly (70 ton) — Sprocket Hub Inner Bearing removal, D5.
 10. 8M-4856 Sleeve (70 ton) — Plate Carrier installation, D9G.
 11. 8M-9003 Sleeve Assembly (100 ton) — Sprocket removal, D7E.
 12. 7F-6068 Sleeve Assembly (70 ton) — Sprocket installation, D2, D3, 931.
 13. 1M-6756 Sleeve Assembly (100 ton) — Final Drive Outer Bearing Support installation, D8H, 583H.
 14. 6H-4135 Sleeve Assembly (100 ton) — Final Drive Support installation, D9 Tractors.
 15. 8M-9010 Sleeve (100 ton) — Sprocket installation, 955K, D6C, 561C, D7E, 572E.
 16. 5P-6541 Sleeve (70 ton) — Replaces canceled 5F-9897 — Final drive bearing installation, D2, D3, 931; final drive gear removal, D2.
 17. 5P-2180 Puller — Final Drive Support removal, D8H.
 18. 8M-4858 Adapter — Sprocket removal, D9G.
 19. 4S-5370 Adapter — Sprocket installation, D7E, D7F, early 983, 572E.
 20. 8S-0156 Adapter — Sprocket removal, 977K.
 21. 2P-8277 Installer — Sprocket installation, later 983.
 22. 6B-9183 Yoke — Tandem Drive Sprocket removal,

30 Power Train Tools

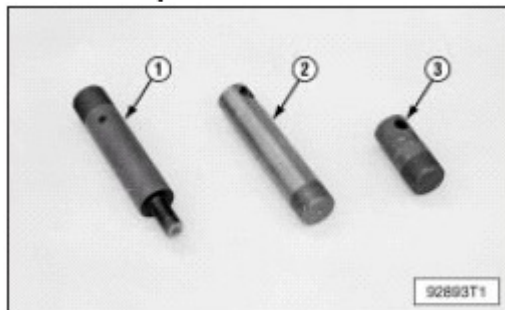
Sprocket Hub Outer Bearing Removal Tools



1. 8S-0155 Yoke
2. 2B-2003 Yoke
3. 1F-7057 Yoke
4. 4B-6091 Yoke
5. 4B-6090 Yoke

270 →

Shaft Adapters

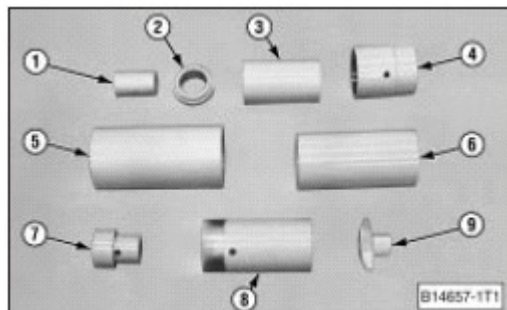


1. 2P-8348 Adapter — Sprocket and swing gear removal, 225 Excavator
2. 5P-0972 Adapter (100 ton) — Sprocket removal, later D9G; Outer bearing cage removal, D8H
3. 3P-2248 Adapter (70 ton) — Outer bearing cage holder removal, D7E, D7F, 571E, 571F, 572E, 572F and 983; Sprocket removal, D3, 931

3 →

- 5P-4181 Extension Adapter (100 ton) — Sprocket shaft removal and installation, D5, D6B, D6C, 561, 955 and 977

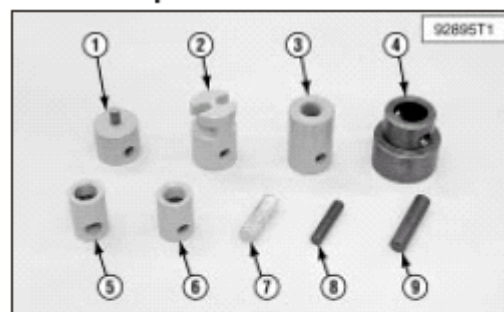
Additional Tools



1. 5P-5215 Adapter
2. 5P-5213 Adapter
3. 5P-5214 Sleeve
4. 5P-5216 Adapter
5. 5P-5217 Sleeve
6. 5P-6220 Sleeve Assembly
7. 5P-5227 Adapter
8. 5P-6222 Adapter
9. 6V-4111 Adapter

4 →

Shaft Adapters and Coupling Components



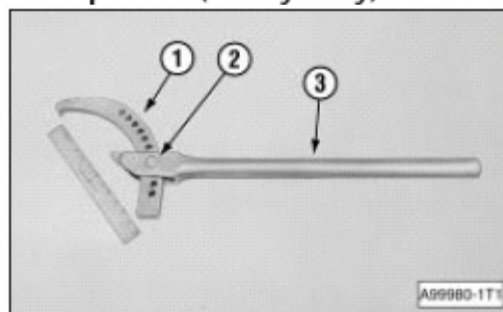
1. 5F-9881 Adapter, Shaft — 3/4 inch-16 Male Thread
2. 7F-6066 Adapter, Shaft
3. Shaft Adapters (typical shown)
 - 5F-9879 Adapter, Shaft (70 ton) — 1 3/4 inch-12 thread
 - 5F-9880 Adapter, Shaft (70 ton) — 1 7/8 inch-12 thread
 - 5F-9882 Adapter, Shaft (70 ton) — 2 1/2 inch-12 thread
 - 5F-9883 Adapter, Shaft (70 ton) — 1 5/8 inch-12 thread
 - 5F-9884 Adapter, Shaft (70 ton) — 1 3/8 inch-12 thread
 - 5F-9885 Adapter, Shaft (70 ton) — 1 1/2 inch-12 thread
 - 5F-9886 Adapter, Shaft (70 ton) — 1 1/8 inch-12 thread
 - 5F-9887 Adapter, Shaft (70 ton) — 1 inch-14 thread
 - 6F-8342 Adapter, Shaft (70 ton) — 2 3/4 inch-12 thread
 - 6F-8343 Adapter, Shaft (70 ton) — 2 1/4 inch-12 thread
 - 7F-4775 Adapter, Shaft (70 ton) — 2 3/8 inch-12 thread
 - 5H-0847 Adapter, Shaft (70 ton) — 3 inch-12 thread
 - 4M-8484 Adapter, Shaft (70 ton) — 2 inch-12 thread
 - 5P-4182 Adapter, Shaft (70 ton) — 1 1/2 inch-12 thread
 - 5P-4183 Adapter, Shaft (100 ton) — 1 3/4 inch-12 thread
 - 5P-6514 Adapter, Shaft (35 ton) — 2 1/4 inch-12 thread
 - 7M-9773 Adapter, Shaft (100 ton) — 2 1/2 inch-12 thread
 - 8M-9013 Adapter, Shaft (100 ton) — 2 1/8 inch-12 thread
4. 1P-5582 Adapter, Shaft (100 ton) — 4 inch-12 thread
5. 7M-9774 Adapter Coupling (100 ton for ram)
6. 5F-9888 Adapter Coupling (70 ton for ram)
7. 7M-9772 Pin, Coupling (100 ton) — 1-3/16 inch Diameter
8. 5F-9892 Pin, Coupling (70 ton) — 7/8 inch Diameter
9. 7S-7112 Pin, Coupling (100 ton), — 1 3/16 inch Diameter

185 →

182 →

186 →

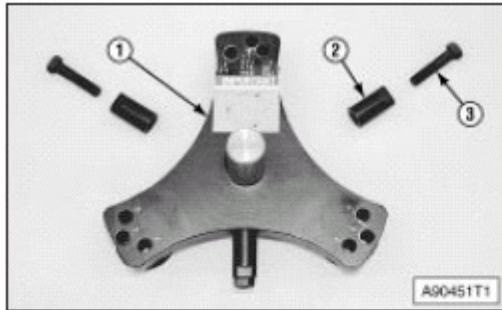
269 → 7F-9306 Wrench, Adjustable Spanner (Heavy Duty)



1. 5F-9696 Jaw, 19.05 mm (.75 in) thick
2. 7F-9304 Bolt
3. 7F-9305 Handle, 654 mm (25.75 in) long

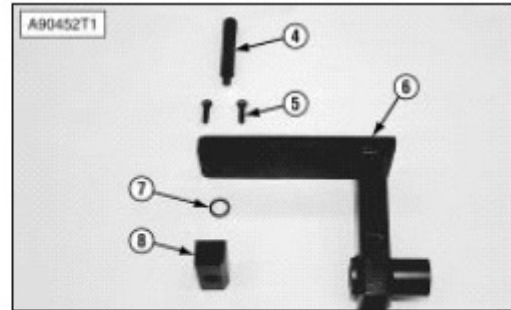
30 Power Train Tools

17 → 6V-0082 Tool Arrangement



Service Parts for 6V-0082 Tool Arrangement

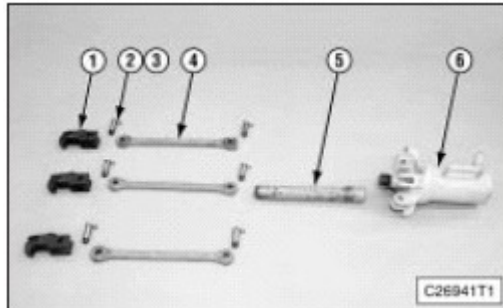
1. 5P-8632 Trunnion Assembly
2. 5P-8634 Spacer (three)
3. 2B-0947 Bolt (three)



Service Parts for 6V-0082 Tool Arrangement

4. 5P-8635 Pin
5. OS-1585 Bolt (two)
6. 5P-8631 Driver Assembly
7. 5H-7370 Seal
8. 5P-8630 Head

8T-5243 Adapter Group



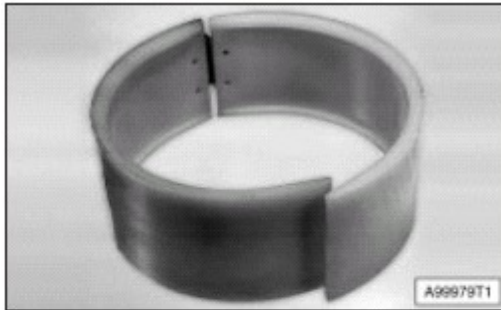
1. 8T-5243 Adapter Group (3)
2. 7B-2499 Ring (12)
3. 6H-4158 Pin (6)
4. 5F-9306 Arm (3)
5. 8S-9975 Ram Adapter
6. 9S-8900 Cylinder Group

43 →

181 →

31 Undercarriage Tools

Duo-Cone Installers

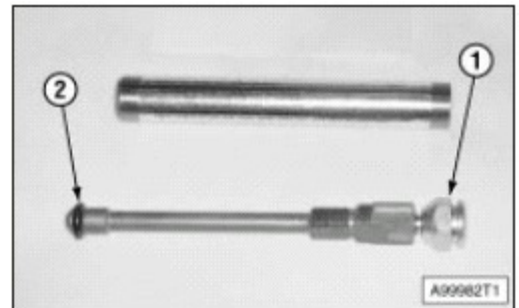


Normal Applications

Duo-Cone Seal Group	Toric Sealing Ring	Seal Installer Tool
2M-2858	1M-3097	—
1M-8747	8H-2262	1U-8840

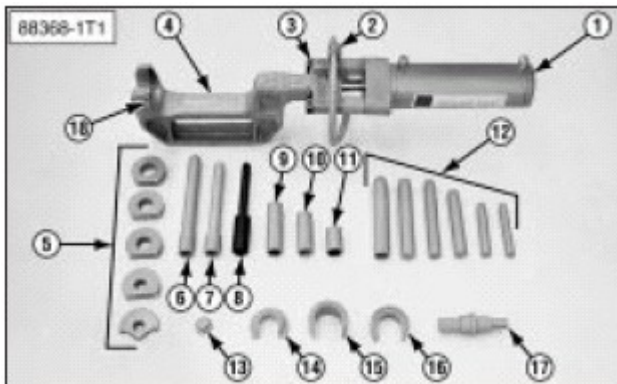
244

132 → 5M-2080 Nozzle, Lubricator



1. 2F-1336 Fitting
2. 2A-3307 Seal

Track Tool Arrangement, 100 Ton

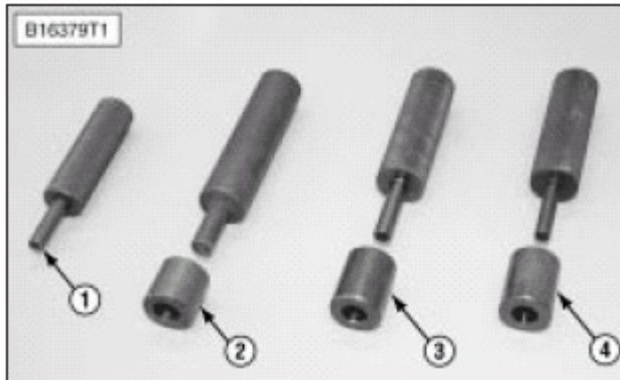


- # 222 → 1. 8S-7172 Hydraulic Cylinder Group
2. 8S-9903 Rollover Group

- # 18 → 5P-2379 Press Frame and Tool Group consists of:

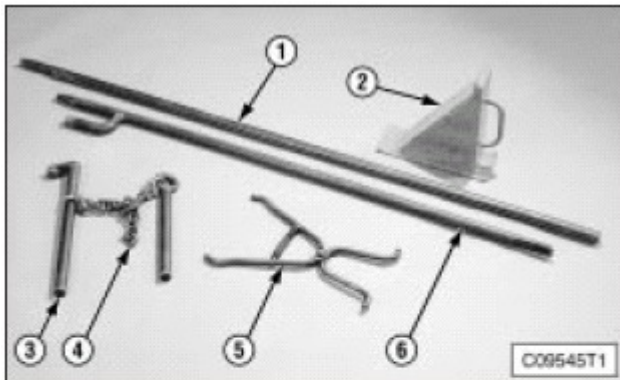
3. 5F-3492 Bolt (two)
4. 1P-3481 Frame
- # 12 → 5. 1P-3482 Adapter
- 1P-3483 Adapter
- 1P-3484 Adapter
- 1P-3485 Adapter
- 5P-2188 Adapter¹ (See Note B)
6. 8S-9975 Adapter, Ram
7. No longer available
8. 8S-9978 Adapter, Ram
9. 8S-9971 Adapter, Ram
10. 8S-9969 Adapter, Ram
11. 8S-9968 Adapter, Ram
12. 6H-8567 Pilot Pin, 307,8 (12.12 in)
- 5F-9455 Pilot Pin, 304,8 (12.00 in)
- 5P-8734 Pilot Pin, 380 (15.00 in)
- 2S-8215 Pilot Pin, 354 (10.00 in)
- No longer available
- 5F-9447 Pilot Pin, 203,1 (8.00 in)
13. 9S-0032 Plug
- # 38 → 14. 7S-8469 Adapter, Bushing¹
15. 2S-8228 Adapter, Bushing¹
16. 2S-8229 Adapter, Bushing¹
- 2S-8235 Pusher, Bushing¹
18. 4K-0487 Wing Bolt

Tools for Servicing Sealed and Lubricated Track



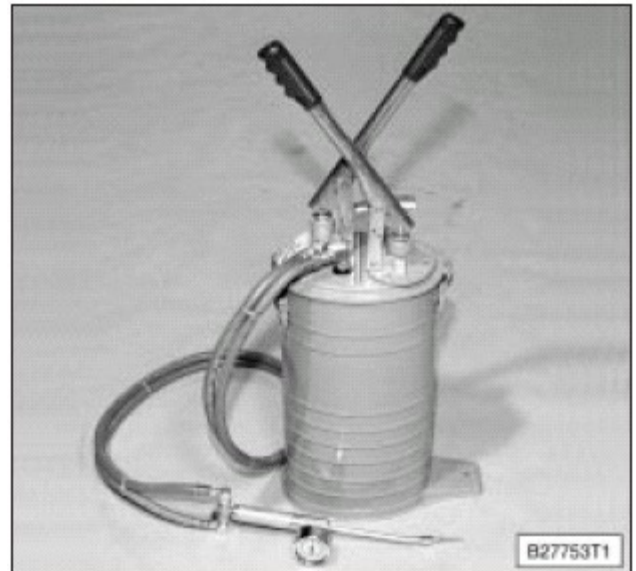
- # 221 → 1. 5P-7419 Plug Installer
- # 256 → 2. 5P-1725 Stopper Installation Tool Group
- 3. 6V-0136 Stopper Installation Tool Group
- 4. 5P-7392 Stopper Installation Tool Group

261 → 1P-3540 Tool Group, Track Installation



- 1. 1P-3533 Carrier Bar
- 2. 1P-3532 Track Block Assembly
- 3. 1P-3559 Hook Assembly (Part of 1P-3545)
- 4. 3L-9168 Eyebolt (Part of 1P-3545)
- 5. 1P-3545 Tool Group, Chain Coupling
- 6. 1P-3530 Tool Group, Seal Installation
- 0L-1366 Spring
- 7. 1P-3534 Hook Bar Assembly

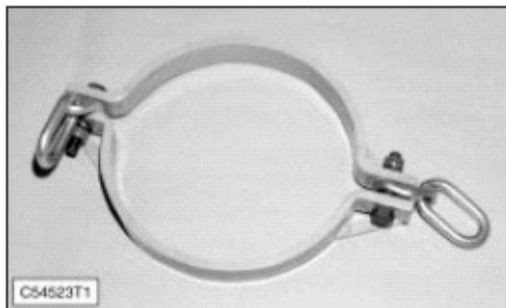
8T-3115 Portable Track Lubricator



175 → former 5P-2420 Track Lubricator,

32 Vehicle System Tools

9U-5980 Lifting Clamp, Accumulator

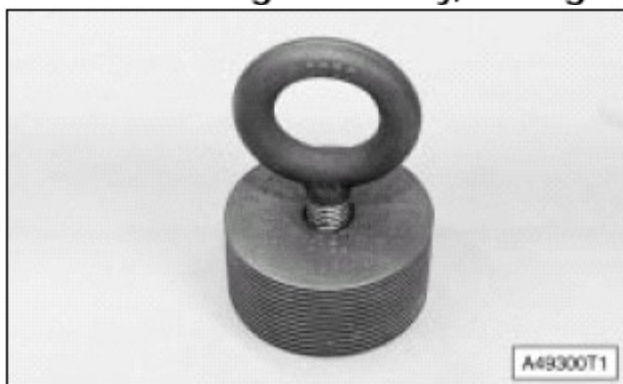


Specifications/Technical Information

Lifting capacity 600 kg (1320 lbs.)
Accommodates cylinders with diameters 228 mm (9 in)
Weight (approximate) 4kg (8.8 lbs.)
Band-type clamp
made of two bands measuring 9.5 x 32 x 318 mm
..... (.38 x 1.25 x 12.5 in)
5P-9736 Link Brackets attached with 1/2-13 bolts

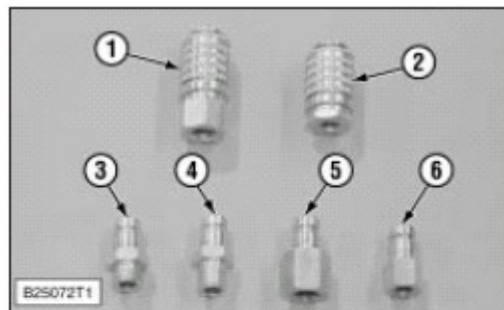
171

5P-7339 Plug Assembly, Lifting



5P-7339 Plug Assembly, Lifting

Quick Disconnect Couplings for Pressure Testing Up to 41 500 kPa (6000 psi)



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Valved Couplers:

1. 6V-4144, Coupler, Valved, Internal, 1/4 inch NPT
2. 6V-4143, Coupler, Valved, Internal, 1/8 inch NPT

Valved Nipples:

3. 6V-3965, Nipple, Valved, External, 9/16 inch SAE Thread
4. 6V-3966, Nipple, Valved, External, 1/4 inch NPT
- 8T-3613, Nipple, Valved, External, 1/8 inch NPT

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- Used with 6V-2157 Bracket for lifting 9D-1750 Fuel Tanks on 631D, 633D and 637D Tractors; make certain threads of lifting plug are fully engaged in fuel tank boss and that tank is empty before lifting